



The Canadian **Donation and Transplantation** Research Program

Programme de recherche en
don et transplantation du Canada

CDTRP Annual Report

2022

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EXECUTIVE SUMMARY

In 2013, the Canadian Donation and Transplantation Research Program (CDTRP) was mandated by the Canadian Institute for Health Research (CIHR) to link three research communities that, historically, had not worked together: the solid organ transplant, hematopoietic stem cell transplant, and donation communities. It was a novel and challenging mandate. CDTRP, thus from its inception, has been about bringing people together and creating an environment that inspires great science. Creating and sustaining a sense of belonging—for all types of communities—is critical. It is particularly important for the donation and transplantation communities because we must work as one to deliver real progress.

In December 2022, the CDTRP community came together in hybrid mode at the Annual Scientific Meeting in Kelowna, the first in-person event for the network since the pandemic began. With extraordinary representation of our patient, family, and donor (PFD) partners alongside trainees and researchers from diverse disciplines, the meeting brought a renewed sense of urgency, enthusiasm, dedication and accomplishment. This event was the culmination of a busy year for CDTRP. Over the course of 2022, large-scale initiatives, such as the National Forum on Emerging Issues in COVID-19 Forum (see page 7), laid the foundation for new projects. Other projects, such as our Media Workshop Series (see page 11), came to fruition, and yet others made direct impact on policy and legislation (see page 8). In this way, the CDTRP community is not only a collection of research projects. The network has the reach, the mature partnerships, the strong professional infrastructure, the support systems and the people – the community – to achieve impact. Entering its 10th anniversary in 2023, CDTRP is now a broad, well-connected network of more than 200 researchers, trainees, and PFD partners at 37 institutions and over 100 national and international partner organizations.

Together, we work in lockstep to drive advances in Canadian donation and transplantation research and mobilize knowledge so that every wish to donate is fulfilled and transplantation is transformed from a treatment to a lasting and sustainable cure.

“For 17 years as I was deteriorating, I couldn’t hear my own heart any more. When I woke up after the surgery –I got a heart from a young man in Nova Scotia. The thing runs like a train—with my head on the pillow, there’s this ba-boom, ba-boom, ba-boom. I was the luckiest person on earth. When you’re doing research for developing policy or clinical practice, the real outcome we’re looking for is ... it’s life. I’m standing here because this heart is beating inside me. If you ever doubt the research you’re doing, please don’t doubt any more.”

- Rienk de Vries, CDTRP patient partner

2022 AT A GLANCE

37 **New investigators**
from 5 countries
(Brazil, Canada, Iran, Mexico, UK)

206

Total investigators

38 **New trainees***

74

Total trainees

15 **New patient, family, donor (PFD) partners**

65

Total PFD partners

40

New projects supported

48 active research projects with PFD involvement

125 total active projects

55

Letters of support provided for grant applications

\$303,796 in committed support linked to **\$47,480,000** in successful funding (projects and new partner networks)

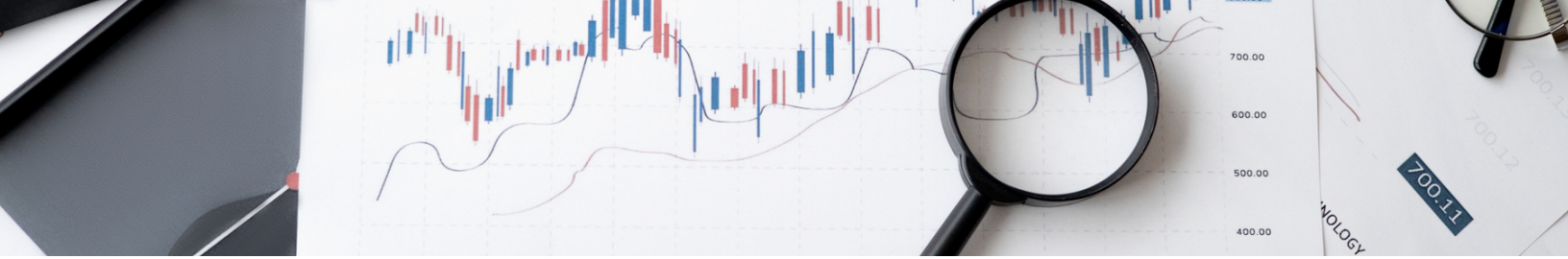


37 **Universities & Research Institutes**



>100 **Partner Organizations**

*2022 saw the biggest annual intake of new trainees in the last five years, representing arts-based research, stem cells, solid organ transplantation, and donation and 13 Canadian research institutions



CDTRP RESEARCH THEMES AND PLATFORMS

5 Research Themes: the nodes of the network

The CDTRP connects its communities through Research Themes.

T1

Improve a Culture of Donation

Methods to implement a culture where the benefits of organ, tissue and cell donation are valued by stakeholders across the donation process. Co-leads: Sonny Dhanani, Aviva Goldberg, Marie-Chantal Fortin, Vanessa Silva e Silva, and Mary Beaucage.

T2

Inform Universal Practices for Donation

Continuously improving the donation process and increasing the transplant yield from individuals, living or deceased, who are able to donate. Co-leads: Marat Slessarev, Lorraine Hamiwka, and Jennifer Woolfsmith.

T3

Engineer and Allocate Better Grafts

Exploration of how to modify and manipulate the graft as well as the recipient before transplant to improve short- and long-term outcomes. Co-leads: Ana Konvalinka, Siba Haykal, and Shilpa Raju.

T4

Tailor an Optimal Immune System for Each Patient

Tackling the life-long risks of rejection or GVHD and addressing the inadequacy of immunosuppressive medications and their toxic side-effects. Co-leads: Mamatha Bhat, Jonathan Choy, and Elaine Yong.

T5

Restore Long-Term Health

Focusing on long-term quality of life for recipients to return to expected levels of function and fulfillment. Co-leads: Tom Blydt-Hansen, Sunita Mathur, and Sandra Holdsworth.

3 Platforms: guidance and tools to support projects

RESEARCH SERVICES PLATFORM:

Resources, tools, and leveraging funding for projects

Available resources include clinical trial design and support; economic, ethics, legal and social sciences (EELS); management resources, small meeting support, connections to expertise, and communication and knowledge mobilization. Through a new partnership with the Ottawa Methods Centre, CDTRP members can now receive expert methodological guidance for clinical trials, with an initial consultation and a further 10 hours of guidance from PhD-level experts if appropriate for the project. In 2022, Tom-Blydt Hansen used this support to develop a winning CIHR Project Grant on biomarkers linked to kidney transplant rejection in children, entitled *"A pilot clinical trial to evaluate the feasibility and acceptability of a prospective, unblinded, randomized controlled, multicenter biomarker intervention trial of a urinary CXCL10 clinical surveillance program in pediatric kidney transplant recipients for early ascertainment and treatment of subclinical allograft inflammation and preservation of kidney transplant function"*.

PFD PARTNERSHIP PLATFORM:

An environment for PFDs to collaborate with researchers

The Platform continues to integrate PFD voices into all aspects of the research lifecycle and network activities. The focus in 2022 was on the depth of engagement with PFDs, further developing infrastructure and processes (see page 9 for an update on the CDTRP Patient Portal). In 2022, 15 new PFD members joined the Platform, we hosted our 3rd annual PFD Research Forum (see page 12), and we expanded the Platform's training offering. We offered PFDs places in San'yas Indigenous Cultural Safety training and The First Nations Principles of OCAP (ownership, control, access, and possession) as well as numerous other educational and learning opportunities focused on donation, transplantation, patient engagement, and patient-oriented research.

EDUCATION AND CAREER DEVELOPMENT PLATFORM:

Networking and training opportunities to build capacity

In 2022, Dr. Matthew Weiss and Ms. Ke Fan Bei joined Dr. Lee Anne Tibbles and Dr. Francis Migneault in leading the Platform. The Platform oversaw the Level Up Research Webinar series (11 sessions with 15 speakers), the integration of trainees into the ISODP Journal Watch project (see page 17), the provision of a variety of training courses and workshops, and expanded opportunities for trainees to take leading roles in core CDTRP activities, such as moderating webinars, moderating sessions at the Annual Scientific Meeting, and creating working groups on specific research topics.

4 cross-cutting priorities

Cross-cutting priorities span all our research, education, and engagement activities:

- Sex and gender;
 - Pediatric, adolescent and elderly populations;
 - Indigenous, rural and remote populations; and
 - Policy, commercialization and knowledge transfer.
-

CDTRP Hubs:

Driving new collaborations in priority areas

CDTRP Hubs are targeted groups based on PFD priorities that focus on collaborative grant development and initiatives to build research capacity across Canada. The Mental Health and Wellness Hub (co-leads Tom Blydt-Hansen, Sunita Mathur, Sandra Holdsworth) focuses on mental health and associated conditions related to transplant and donation – an under-researched patient and caregiver priority. In 2022, the Hub built the mental health pillar of the successful TREAT-COVID proposal (see page 10), with a focus on centering patient and family priorities. The Exercise Hub (co-leads Sherrie Logan, Sunita Mathur, Dmitry Rozenberg) allows for targeted discussion surrounding exercise, prehabilitation, rehabilitation, and sarcopenia, and how they relate to the transplant patient pre- and post-surgery. In 2022, the Hub won a CIHR Planning and Dissemination Grant to establish emerging practices and research priorities for telerehabilitation in solid organ transplantation. The Nutrition Hub (co-leads Chantal Bêmeur and Jennifer Kingdon) is undertaking a scoping review of key issues in the field that will inform future research needs and collaborations.

Allied Research in Donation and Transplantation (ARDOT) working group

Allied health professionals (registered nurses, respiratory therapists, occupational therapists, psychologists, etc.) in donation or transplantation have ideas to contribute to research but often lack time and resources. In response, we launched the ARDOT Working Group from Theme 1, led by Dr. Vanessa Silva e Silva, and co-led by Dr. Sonny Dhanani. ARDOT members have access to consultations for research question conceptualization, methods development, grant applications, inter-professional international collaboration opportunities, and knowledge translation.

ADVANCES TOWARDS OUR GOALS

Prospective Evaluation of COVID-19 Vaccine in Transplant Recipients (PREVenT-COVID): A National Strategy

The PREVenT-COVID study brought together adult and pediatric solid-organ and hematopoietic stem-cell transplant recipients from nine transplant centres in four provinces. The goals were to examine the immunogenicity and safety of COVID-19 vaccines in these individuals; develop a national safety surveillance system of COVID-19 vaccination among transplant recipients; coordinate the efforts of national and provincial organizations to share data; and build a lasting knowledge transfer platform to rapidly disseminate the results to clinicians, stakeholders and health policy decision makers.

CDTRP team member Demitra Yotis (Clinical Data Coordinator) managed the study, helping with data coordination and analysis, and preparing publications; while Kristian Stephens (Knowledge Translation Coordinator) developed the KT strategy for the project. In 2022, the project team began publishing their results:

Victor H. Ferreira, Matthew Ierullo, Faranak Mavandadnejad, Alexandra Kurtesi, Queenie Hu, W. Rod Hardy, Victoria G. Hall, Natalia Pinzon, Demitra Yotis, Anne-Claude Gingras, Sara Belga, Sarah Shalhoub, Marie-Josée Hébert, Atul Humar, Dima Kabbani and Deepali Kumar. "Omicron BA.4/5 neutralization and T-cell responses in organ transplant recipients after Booster mRNA vaccine: a Multicenter Cohort Study". *Clinical Infectious Diseases*
<https://doi.org/10.1093/cid/ciad175>

Muneyoshi Kimura, Victor H. Ferreira, Sagar Kothari, Ivan Pasic, Jonas I. Mattsson, Vathany Kulasingam, Atul Humar, Allison Mah, Jean-Sébastien Delisle, Matthew Ierullo, Beata Majchrzak-Kita, Deepali Kumar, Seyed M. Hosseini-Moghaddam. "Safety and Immunogenicity After a Three-Dose SARS-CoV-2 Vaccine Schedule in Allogeneic Stem Cell Transplant Recipients". *Transplantation and Cellular Therapy*
<https://doi.org/10.1016/j.jtct.2022.07.024>

Dima Kabbani, Demitra M Yotis, Victor H Ferreira, Sarah Shalhoub, Sara Belga, Varalika Tyagi, Matthew Ierullo, Vathany Kulasingam, Marie-Josée Hébert, Lori West, Jean-Sébastien Delisle, Normand Racine, Sacha A De Serres, Héloïse Cardinal, Mélanie Dieudé, Atul Humar, Deepali Kumar. "Immunogenicity, Safety, and Breakthrough SARS-CoV-2 infections after COVID-19 Vaccination in Organ Transplant Recipients: A Prospective Multicenter Canadian Study". *Open Forum Infectious Diseases*
<https://doi.org/10.1093/ofid/ofad200>

International Donation and Transplantation Legislative and Policy Forum

In 2021, CDTRP co-hosted The International Donation and Transplantation Legislative and Policy Forum, hosted by Transplant Québec. The Forum, led by Scientific Director and Theme 1 member Dr. Matthew Weiss, assembled 61 international experts in donation and transplantation, including PFD partners, to provide guidance on the structure of an ideal organ and tissue donation and transplantation (OTDT) system. To help turn the eight academic publications into real-world action, CDTRP is developing the Forum's knowledge mobilization strategy.

Among its comprehensive body of recommendations, the Forum concluded that mandatory referral is a key evidence-based best practice. Mandatory referral is a legal requirement that healthcare professionals report all patients who may become potential donors to their organ donation organization. CDTRP produced a [Fast Facts](#) on this topic on a timeline to align with an active policy debate in Alberta. We worked with partners to share the document with elected representatives (see below). This contributed to an exciting success in changing policy—just one example of the Forum's potential impact on legislation.

TURNING RECOMMENDATIONS INTO REALITY

Coming into force on April 1, 2023, Bill 205 (The Human Tissue and Organ Donation (Mandatory Referral) Amendment Act 2022) achieved a rare feat in modern politics: unanimous, all-party support from the Alberta Legislature.

As part of the knowledge mobilization strategy for the International Donation and Transplantation Legislative and Policy Forum, the CDTRP team worked with the Alberta Transplant Institute and the Alberta ORGANization Group to understand what Forum recommendations could inform proposed legislative changes in Alberta. We quickly developed a [FAST FACTS lay summary document](#) on the topic of mandatory referral, which was shared with Alberta MLA RJ Sigurdson, the sponsor of Bill 205, and other government and health system stakeholders. The evidence-based information in the document was picked up by several Members of the Legislative Assembly and incorporated into several speeches during the legislative debate. The practice of mandatory referral is now legally prescribed in Alberta.



"We all know that organ donation is the ultimate gift of life. Over the past several years however, it became clear that Alberta's donation process needed to be changed to keep up with best practices and to increase the rates of donation."

- RJ Sigurdson, MLA for Highwood, Alberta
([Source](#))

CDTRP PATIENT PORTAL

The Patient Portal was launched as a one-stop-shop for PFDs to access resources that are searchable by name, region, transplant type, or topic. It was created in response to a PFD-identified need for organized resources that are clear, concise and useful. As such, it is an integral part of the PFD Platform.

“At every stage of my transplant journey, I got binders full of information on routines, diet, medications, etc. It was overwhelming. I never looked at them. The Portal replaces all that, and provides the information when patients are ready.”

- Manuel Escoto

PFD Partnerships and Education Platform Manager and transplant recipient

The Portal started with an initial 150 resources on the pre- and post-transplant journey that were gathered from across Canada and grouped into 40 topics, such as exercise, peer support, pregnancy and mental health. Resources are sourced from transplant programs, government, transplant centres or patient organizations and were approved by a PFD Committee to ensure that different perspectives were captured.

2022 focused on Phase 2 of developing the Portal. There are now over 250 resources, expanding to include chronic diseases, pre-transplant and pediatrics. CDTRP is partnering with the Transplant Ambassador Program as part of our efforts to communicate the availability of the Portal to PFDs across Canada.

As well, a new Patient Engagement Opportunities page allows CDTRP to provide public and open information about research opportunities. It allows PFDs (or any interested member of the public) to search for research projects they might want to be involved in, and provides a venue to researchers to promote their project idea that needs a patient partner—before they even start developing their proposal. Each project idea is reviewed and approved before going live. Depending on the needs, the PFD Partnerships Manager may recommend to one or more PFDs that they consider getting involved.

In the works for next year is the Patient Engagement Resources page for PFDs who want to learn about the research process, and for researchers wanting to engage PFDs in their project. This page will house tips, guidelines and recommendations to make the collaboration successful on both sides.

Development of the CDTRP Patient Portal has been generously supported by:



MAJOR EVENTS IN 2022

4th National Forum on Emerging Issues in COVID-19 in Transplantation

Beginning in January 2021, CDTRP has held regular forums to identify the transplant community's priorities related to COVID-19. The first forums informed the development of the productive PREVENT-COVID study (see page 7). The pandemic continues to quickly evolve, and CDTRP identified a need to develop an agile framework to build consensus on and then answer the most important research questions.

On March 22, 2022, we hosted a National Forum to explore how immunocompromised individuals, such as transplant recipients, are particularly affected by COVID-19, and open questions on the use of emerging antibody and antiviral therapies. Transplant recipients remain at higher risk of severe outcomes; little is known about effective rehabilitation strategies or strategies to support their long-term recovery of quality of life. In attendance were researchers, economists, clinicians, PFDs, government, and industry. Together, they reached consensus on the following research questions as priorities:

- What is the optimal treatment timing in transplant recipients for antivirals and monoclonal antibodies?
- What are the real costs of policies that impact mental health, reduce quality of health, and reduce transplant patients' ability to 'return to normal' safely?
- What supports are required to help transplant patients return to 'normal life' in transplant centres and in the community?

A follow-up session at the 2022 PFD Research Forum strengthened the input of transplant recipients and families in understanding current issues. At the CDTRP Annual Scientific Meeting in December 2022 (see page 13), the team presented the project that emerged: "Addressing Critical Emerging Issues in COVID-19 in Transplant Recipients: TREAT-COVID". At the meeting, we were delighted to announce the contributions of AstraZeneca (\$300,000) and the University Hospital Foundation (\$213,750). More partners are still coming on board, and in early 2023, Health Canada awarded the project \$1.8 million in support.



"This project shows the power of a community to come together quickly and listen to the needs and priorities of the powerful voices of our patient partners. We need to continue to empower these conversations that help us generate new knowledge and move it forward in ways that are helpful."

- Dr. Lori West, Scientific Director, CDTRP

Media Workshops on ODT and health literacy: Learning from research and successful collaboration

Do you find that media coverage sometimes gets it wrong about organ donation and transplantation (ODT) and the medical reality? Do you find that health experts are not sufficiently involved or engaged in the public, media, and social discourse? To spark discussion on these issues, we were proud to launch the Media Workshop Series on April 20, 2022. The first edition brought together journalists and media specialists (traditional and social) with researchers, health professionals, and patient, family and donor partners for conversations on how to make it easier for accurate information and meaningful stories of public interest to reach Canadians. Speakers were Belén Valsco Conquero (National Transplant Organization, Spain), Tim Caulfield (University of Alberta), and Aviva Goldberg (University of Manitoba). A rich panel discussion moderated by Cristina Howorun (journalist and filmmaker) featured Shaifali Sandal (McGill), Blair Bigham (physician and journalist), Heather Badenoch (Village PR), and Stephen Beed (Nova Scotia Health).



A second workshop was held on May 17, 2022, jointly hosted by the University of Alberta Health Law Institute. Media, and increasingly social media, significantly influences public perspectives. With policy changes taking place in the Canadian organ donation landscape (e.g. presumed consent donation in Nova Scotia, medical assistance in dying, and precision allocation advances), policy makers must consider issues of equity, trust, and public support. Public outreach efforts must consider how to effectively interact with online spaces. In the second workshop, titled *“Engaging the public online during policy change,”* speakers from different backgrounds shared their recent and extensive experience engaging the public online. They discussed the complexities of hosting and moderating discussions, creating accurate informative content, and responding to misinformation. They also highlighted challenges and lessons learned. Sharing their experiences will contribute to the ongoing discussions around how to best engage the public online.

A third workshop was held at the Annual Scientific Meeting in December 2022 (see page 13), where panelists from ODT organizations discussed their missions, roles, and goals to communicate information to the public and media, their strengths and limitations as organizations, and how we could all work more collaboratively.

2022 PFD Research Forum

The 3rd edition of the Patient, Family, and Donor Research Forum was held on June 22-23, 2022 in cooperation with the Organ Donation and Transplantation Collaborative and the Canadian Society of Transplantation. With support from 17 partners (see below), the Forum is a key opportunity to advance patient engagement and collaboration between investigators, trainees, and PFD partners in donation and transplantation research. The event creates a safe environment for PFD partners to make their voice heard on issues that are the most pressing and important to them.



The Forum was attended by 157 individuals. Speakers and panelists (including 11 PFDs) presented on PFD research priorities and discussed emerging best practices for patient engagement. Presentations fell into four blocks, thematically aligned with research priorities within donation and transplantation fields:

- Equity, Diversity, and Inclusion in Patient Engagement;
- PFDs in Knowledge Translation;
- Patient Engagement in Research;
- The Evolution of Research with PFDs.



“This year we really wanted to focus on how PFDs can become more involved with research, especially those who have never thought about it before.”

- Mary Beaucage, Forum Co-chair

The PFD Research Forum was generously sponsored by Astellas.



9th Annual Scientific Meeting

Our Annual Scientific Meeting brings together the national research community to present and discuss the future of donation and transplantation research, celebrate recent achievements, and examine the strategic direction of CDTRP. We achieve this by:

- Addressing changes to research on a national and global scale (e.g., COVID-19, Equity, Diversity and Inclusion, Knowledge Translation, the funding climate);
- Spotlighting important topics for future research in transplantation and donation;
- Promoting and engaging senior and junior researchers to present their work to the national community;
- Increasing awareness and collaboration among CDTRP members (including investigators, trainees, and PFDs).

We were pleased to host our 2022 Annual Scientific Meeting on December 7-9, 2022, in a hybrid format in Kelowna, BC. There were 84 participants who joined in person, and approximately 50 virtual participants per day. Around one-quarter of participants were patient, family, and donor partners, who credited the event's strong health and safety protocols and financial support with enabling such strong engagement.

The exciting program included presentations on clinical trials in donation, organ perfusion, exercise in transplantation, xenotransplantation, artificial intelligence, evaluating PFD impact within CDTRP, and equity of access, among other topics. The next generation of donation and transplantation researchers presented their research in a Three-Minute Thesis session: a rapid-fire, exciting way for trainees to share their work in a simple, engaging manner.

Throughout the meeting, social science and arts-based researchers from the Frictions of Futurity and Cure in Transplant Medicine team hosted a discussion lounge to engage with different forms of understanding the challenges, tensions, promises and hopes attached to transplantation and to the way it both reveals and troubles concepts such as cure, risk, kin, and care.

Participants also had the opportunity to participate in the special session entitled "Indigenous Book Club: Growing reconciliation in ODT through Indigenous literature". Participants read the novel, *Five Little Indians*, by Michelle Good, and the discussion hosted by Dr. Caroline Tait created a safe space to discuss complex health issues impacting First Nations, Métis, and Inuit peoples.

The CDTRP 9th Annual Scientific Meeting was generously sponsored by:



RESEARCH INNOVATION GRANTS

We were pleased to welcome eight new projects (total value \$240,000) into the national research structure through the 2022 Research Innovation Grant Program—a proven way to fund exciting new projects every year. Awardees included both early-career and established researchers. The Program is a peer-reviewed, partnership-based program. In 2022, funding partners included the Transplant Research Foundation of BC, Kidney Foundation of Canada, Alberta Transplant Institute/Paladin Labs Inc., Ontario Health (Trillium Gift of Life Network), University Health Network Multi-Organ Transplant Program and Université de Montréal.

NEW PROJECT HIGHLIGHT

The full list of new projects can be found in Appendix 1, page 23.

Virtual reality and gameplay as a model for exercise rehabilitation in pediatric solid organ transplant patients. A patient- and family-led initiative

Dr. Kathryn Armstrong, BC Children's Hospital

Participating in regular exercise is important for the health of all children, including those who have had a solid-organ transplant. Finding engaging ways to get them to be active and stay active can be difficult. Dr. Armstrong's group tries to increase activity in patients by providing structured exercise programs in hospital, at home and online. One of their transplant patients and his dad told them about how they were using virtual reality (VR) gameplay to exercise and recover from a transplant. While they worried about adding screen-time, the team thought this idea might get kids who liked gaming to be more active. This project will study 20 solid organ transplant patients aged 8-18 years, who will play VR games for at least 30 minutes/day, 3 days/week for 8 weeks. The team will test if 8 weeks of playing VR games will motivate them to exercise and stay active.

"This project truly demonstrates patient engagement. We applaud Dr. Armstrong and her team for listening to their patients and caregivers. The TRFBC is excited to support a project that will help make a difference for children and youth, and potentially adults, with transplants."

Elaine Yong, TRFBC



NEW PROJECT HIGHLIGHT

Ex vivo immuno-cloaking of donor lungs to prevent transplant rejection: a proof-of-concept study

Dr. Marcelo Cypel , UHN

Only 50-60% of lung transplant recipients live more than five years. This is partly because the patient's immune system attacks the new lung, and because of injuries that occur while reviving the lung. Early injuries and rejection are thought to start at the blood vessels, as these are the first contact point between the new lung and the patient. Blood vessels are injured by the damage/loss of glycocalyx, a molecule that coats the cells of the blood vessels. The team's collaborator, Dr. Kizhakkedathu, showed that reconstructing the organ's blood vessels with immunosuppressive polymers before transplantation prevents it from being rejected without use of immunosuppressant. This project will optimize the technology and evaluate the efficacy and safety of these polymers with cell-culture and small-animal models for lung-specific uses. Results will serve as a basis for translation into large animal and human clinical evaluation. Ultimately, this new immune therapy can help improve the health of transplant patients around the world.

"This work is a perfect example of how bringing together multiple disciplines can lead to new and creative ideas to solve some of transplantation's greatest challenges."

Dr. Patricia Gongal, CDTRP Executive Director



PARTNERSHIPS

Industry partnerships

In 2022, CDTRP revisited and strengthened its industry engagement strategy by identifying various ways to work with different industry partners for mutual benefit. We are delighted to have initiatives supported by Astellas, Takeda, GSK, AstraZeneca, Paladin, and Qiagen. With some partners, we are collaborating more closely on shared innovation and knowledge mobilization goals, such as the new COVID-19-related project supported by AstraZeneca (see page 7). With others, sponsorship of CDTRP events is a beneficial way of bringing communities together and sharing information.

Health Canada and the Organ Donation and Transplantation Collaborative

A Vision for the Future of the Canadian Donation and Transplantation Research Ecosystem was a project driven by the Organ Donation and Transplantation Collaborative, and funded by Health Canada. It stemmed from the feeling within the Collaborative that research and innovation lacked a unified approach, which represents a major for a high-performing ecosystem. CDTRP oversaw the logistics of the project with the support of a third-party consultant. The project set out to clarify in detail the challenges, needs, roles, responsibilities, and interfaces of the key stakeholders in research and innovation, and to develop a shared vision of the future. This national scoping exercise culminated in two reports: a Phase 1 comprehensive ecosystem mapping report, and a Phase 2 Vision and Actions report, with recommendations for the specific actions the Collaborative should consider. CDTRP convened a panel discussion at the Canadian Society for Transplantation annual meeting in Banff in September 2022 and a follow-up conversation at its annual meeting in December (see page 13) to share the results of the reports and to move towards a refined vision for CDTRP's role as a national network supporting research.

ISODP Journal Watch

In partnership with The Transplantation Society, the International Society for Organ Donation and Procurement (ISODP) started *Journal Watch*, an educational resource and benefit to ISODP members. It aligns with two of the Society's primary goals: to enhance resources to improve donation practices, and to establish an integrated network of donation professionals. ISODP *Journal Watch* started in 2021 with a team of researchers in the UK. For the 2022 edition, with financial support generously provided by Canadian Blood Services, CDTRP researchers Drs. Matthew Weiss and Sonny Dhanani and trainees Amina Silva and Sylvia Okonofua identified and summarized articles on organ donation into a convenient compilation, with CDTRP Communications and Data Manager Stephanie Larivière coordinating. The two trainees presented the *Journal Watch* project at the CDTRP Annual Scientific Meeting (see page 13). *Journal Watch* papers came from around the world (13 countries) and were accessed around the world, with the top five countries showing a wide geographic spread: UAE, USA and Australia. Ultimately, *Journal Watch* aims to create a journal entirely dedicated to organ donation.



Canadian Critical Care Forum

Highlighting the importance of its long-term relationship with the organ donation community, CDTRP supported the Deceased Donation Stream of the Forum, together with Canadian Blood Services and Trillium Gift of Life. This Stream promotes scientific research in organ donation and transplantation and its application to critical care practice. The day's agenda focused on the shift to a brain-based definition and determination of death, death by neurologic and circulatory criteria, and finishing with a rounds on developing a modernized pan-Canadian organ donation and transplantation data and performance reporting system. CDTRP Associate Director Dr. Sonny Dhanani and Education and Career Development Platform co-lead Dr. Matthew Weiss presented as well as other CDTRP researchers.



Deceased Organ Donation Stream
November 24, 2022
Sheraton Centre, Toronto

LEVEL UP RESEARCH WEBINARS

In 2022, CDTRP hosted 11 webinars on a variety of research topics that captured the growth of the field and may lead to new research directions. Trainees, PFD partners, and researchers moderated the sessions to bring the broadest perspectives on the topics. All the webinars are available on the [CDTRP website](#) and [YouTube channel](#).

Thank you to our supporters on this initiative: 

Survey of Current Practices in Pediatric and Neonatal Donation and Transplant in Canada
Dr. Lorraine Hamiwka & Laurie Lee

Molecular mechanisms and therapeutic targets of human lung transplant injury
Dr. Mingyao Liu

Can-SOLVE CKD Network's Roles and Resources for Patient Partners
Alicia Murdoch & Melanie Talson

Acceptability and feasibility of the Kidney Transplant Physical Activity and Social Club (KEEP ACTIVE Club)
Dr. Tania Janaudis-Ferreira

The challenge of missed organ donors: Can machine learning be used for early identification of potential donors? - **Dr. Michaël Chassé & Dr. Nicolas Sauthier**

Developing a national research program: a practical guidance for researchers
Amina Silva

Implementation of Donation Advisor: A personalized clinical decision support tool for improved efficiency and effectiveness of deceased organ donation and transplantation - **Dr. Sonny Dhanani**

International Forum Outputs regarding Donation System Architecture, Consent Models and Emerging Legal Issues - **Dr. Matthew Weiss & Claire Williment**

Repopulation of Long Segment Tracheal Allografts for Transplantation
Dr. Golnaz Karoubi

Is the urobiome relevant for kidney allograft health?
Dr. David Harriman

Enhanced sociodemographic variable collection in OTDT systems
Dr. Murdoch Leeies

THE CDTRP TEAM

“Individually, we are one drop. Together, we are an ocean.”
– Ryūnosuke Satoro



Dr. Lori West, MD, PhD
Scientific Director
University of Alberta



Dr. Sonny Dhanani, MD
Associate Director
(Donation) - CHEO



Dr. Jean-Sébastien Delisle, MD, PhD
Associate Director (Hematopoietic
Stem Cell Transplantation)
Université de Montréal



Katie Bain, BAT, CAPM®
Director of Partnerships



Erika Kathe Croft, MSc
Research Theme
Coordinator



Manuel Escoto, MPH
PFD Partnerships and
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Patricia Gongal, PhD
Executive Director



Stéphanie Larivière
Communications & Events
Manager



Julie Turgeon, PhD
Program Manager



Diana Tertzakian, BA
Administrative Assistant



Demitra Yotis, MSc
Research Manager

NEW VOICES

After many years of service, several Theme leads transitioned out of the leadership roles—but remain active CDTRP members. We thank Dr. Matthew Weiss, Dr. Jennifer Chandler and Ms. Laurie Blackstock (Theme 1); Dr. Maureen Meade, Dr. James Shapiro and Ms. Nathalie Trudeau (Theme 2); and Drs Jean-Sébastien Delisle and Markus Selzner (Theme 3) for their dedication, enthusiasm and motivation. In their place, we welcome Drs. Sonny Dhanani, Aviva Goldberg, Marie-Chantal Fortin, Vanessa Silva e Silva and Ms. Mary Beaucage (Theme 1); Dr. Marat Slessarev and Ms. Jennifer Woolfsmith (Theme 2); and Drs. Ana Konvalinka and Siba Haykal (Theme 3). We wish the new leads every success as they fill the big shoes left behind.

FOND FAREWELLS

In January 2022, Dr. Mélanie Dieudé took on the role of Director of Research Operations at Héma-Québec. This step forward in her career will allow her to build on the research leadership she demonstrated as CDTRP Executive Director. Mel became CDTRP Executive Director in January 2020, and was instrumental to the evolution of our unique research network. Her talent in bringing people together, bridging gaps, and mobilizing the energy and voices of our network allowed us to accomplish much during this time, and will continue to serve the community well. She says “Ce n’est qu’un au revoir” since she will continue as a partner, researcher, and member of CDTRP Theme 4.

In a great honour that recognizes her visionary leadership, Dr. Marie-Josée Hébert was appointed Chair of the CIHR Governing Council, the highest oversight role, and felt it necessary to leave her role as Co-Director of the CDTRP. Back in 2013, there was doubt that one could do more than divide a pie of grant funding. However, bringing together the Canadian donation, solid organ transplant, and hematopoietic stem cell transplant research communities with partners, patients, families, and donors, the CDTRP created a national framework for collaboration and team science. Ten years later, we have demonstrated what can be achieved by valuing non-traditional career paths to research, valuing patient and family voices, and elevating women in science. Marie-Josée’s leadership has been transformative for donation and transplantation research in Canada.

“I’m thrilled that Marie-Josée’s unique style of leadership will be put to use on a national scale. That’s great news for science in Canada!”

- Dr. Lori West, Scientific Director, CDTRP

As well, we said farewell to Mr. Kristian Stephens, Knowledge Translation Coordinator, as he pursued other endeavors following the completion of his work on the PReVENT-COVID project.

EQUITY, DIVERSITY AND INCLUSION

In 2022, the CDTRP continued efforts to be a more inclusive space for people of all genders, backgrounds, and identities. We continue to play close attention to balance in committee and Executive leadership positions. Our analysis indicates that the CDTRP Executive committee composition is approximately on par with the Canadian population for representation of genders and racialized groups. CDTRP also monitors gender balance in other committee roles, including for the Innovation Grant review process. In 2022, scientific reviewers and PFD reviewers were approximately gender-balanced (11 men and 14 women).

To standardize EDI monitoring, the CDTRP has developed a set of demographic questions that have been incorporated as part of the Innovation Grant application form for EDI monitoring. We incorporated the same questions into new membership forms (investigators, trainees, and PFDs), which has enabled us to monitor the diversity of our membership. Preliminary results from this dataset indicate:

- Our membership is composed of 53% women, 42% men, and 5% minority genders (agender, bigender/multigender, non-binary, and other genders).
- 17% of CDTRP members identify as having a disability. Most individuals with disabilities are PFD partners; 5% of researchers/trainees identify as having a disability.
- The CDTRP membership is very diverse in terms of race: 51% of CDTRP members belong to racialized groups, compared to approximately 25% of the general Canadian population.

Furthermore, we are considering ways to better support linguistic diversity across the network. We are proud that at our events, the CDTRP management team can provide live language support in English, French, Spanish, and German. We have a growing capacity to support francophone science, with half of management team members being either native French-speakers or having a working level.



“If you want to welcome and support the story and the value of the lived experience that patients are offering they have to be able to share this in their own first language...reaching out in various languages will only enrich our impact.”

- Dr. Marie-Josée Hébert, past Scientific Co-Director of CDTRP and lifetime Theme 3 member

FOUNDING AND COLLABORATING PARTNERS

We extend our heartfelt thanks to CDTRP's Founding and Collaborating Partners for their invaluable support in advancing donation and transplantation research.



APPENDIX 1.

2022 CDTRP Research Innovation Grant Recipients

Funding Partner	Recipient Name	Project Title
CDTRP UHN Research Innovation Grant	Natasha Aleksova	A living systematic review and rapid recommendations of the effect of COVID-19 vaccination strategies on outcomes in solid organ transplant recipients
Transplant Research Foundation of BC/CDTRP Venture Grant	Kathryn Armstrong	Virtual reality and gameplay as a model for exercise rehabilitation in pediatric solid organ transplant patients. A patient and family led initiative
CDTRP Research Innovation Grant	Suze Berkhout	Temporalities of Cure: A qualitative study of psychosocial support needs and long-term survivorship in liver transplantation
CDTRP Research Innovation Grant	Marcelo Cypel	Ex-vivo immuno-cloaking of donor lungs to prevent transplant rejection: a proof of concept study
CDTRP Ontario Health (Trillium Gift of Life Network) Research Innovation Grant	Istvan Mucsi	Confirming the validity of the PROMIS physical function item bank in kidney transplant candidates and recipients
CDTRP UdeM Research Innovation Grant	Marie-Pascale Pomey	The TRANSPLANT-ACTION CONNECTED Graft program (TAC-Graft program)
CDTRP KFOC Research Innovation Grant	Shaifali Sandal	Experiencing graft failure and exploring re-transplantation: a patient perspective
CDTRP KFOC Research Innovation Grant	Sunita Singh	The efficacy, mechanisms and safety of SGLT2i and GLP1RA combination therapy in kidney transplant recipients: The HALLMARK study

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We extend our gratitude to the dedicated and tireless individuals whose unwavering commitment and hard work made the projects mentioned in this Report a success.

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