



The Canadian **Donation and Transplantation** Research Program

Programme de recherche en
don et transplantation du Canada

2023 — 2024

ANNUAL REPORT

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EXECUTIVE SUMMARY

Since 2013, the Canadian Donation and Transplantation Research Program (CDTRP) has been committed to increasing access to organ, tissue, and cell transplants while focusing on long-term solutions for Canadian transplant recipients. To develop new knowledge and mobilize that knowledge into changes in policy and practices, the CDTRP works collaboratively with over 200 investigators, trainees, collaborators, patient, family, donor (PFD) partners, and knowledge users from 37 different sites across Canada. The CDTRP has continued to foster a community that inspires the research needed to ensure every donation opportunity is fulfilled and to enhance the survival and quality of life of Canadians in need of or living with a transplant.

Coinciding with our 10th anniversary, 2023-2024 was a year marked by an exciting organizational transition. In August 2023, the network incorporated as a not-for-profit organization and in March 2024, implemented a new cost-sharing model for many of our research supports. While the transition continues throughout network activities and governance, we continue to comprehensively support the Canadian donation and transplantation research community. In December 2023, the CDTRP was pleased to host its 10th Annual Scientific Meeting in Montreal, QC (see page 13). This hybrid event welcomed 100 in-person participants and 101 virtual participants. The meeting focused on engaging patient partners and emphasizing the need to address underrepresentation of marginalized groups in organ and tissue donation. In the 2023 Research Innovation Grant competition, the CDTRP and supporting partners were thrilled to fund 12 new Research Innovation Grant projects led by dedicated and visionary investigators. We also hosted the Café Scientifique: Pathways to Truth and Reconciliation in Organ Donation and Transplantation (see page 14), the first national Indigenous-led donation and transplantation-focused gathering in Canada. The event aimed to shed light on systemic barriers Indigenous patients, families, caregivers, community leaders, and healthcare providers face within Canada's donation and transplant systems. While these events were particular highlights, our community accomplished much more, as this report describes. Entering its 11th year in spring 2024, the CDTRP is thrilled to continue to serve the research community, developing equitable infrastructure to support researchers, partners, and patients alike.



2023-2024 AT A GLANCE

33 New investigators
from 24 institutions

200
Total investigators

40 New trainees

115
Total trainees

25 New patient, family,
donor (PFD) partners

95
Total PFD partners

33 **New projects supported**
30 active research projects with PFD involvement
87 total active projects

68 **Letters of support provided for grant applications**
\$221,194 in committed support linked to **\$14,857,072**
in successful funding (projects and new partner networks)



37 Universities &
Research Institutes



>100 Partner
Organizations

5 RESEARCH THEMES: THE NODES OF THE NETWORK

The CDTRP's connection to the community.

1 **Improve a Culture of Donation**
Theme 1 focuses on methods in our hospitals, government, and society for a culture where the benefits of organ, tissue and cell donation are valued by stakeholders across the donation process.

2 **Inform Universal Practices for Donation**
Theme 2 focuses on research in donation sciences, to increase the benefits of transplant created from individuals, living or deceased, who are able to donate.

3 **Engineer and Allocate Better Grafts**
Theme 3 focuses on research to modify and manipulate the graft as well as the recipient before transplant to improve short- and long-term outcomes.

4 **Tailor an Optimal Immune System for Each Patient**
Theme 4 works to improve to address the inadequacy of medications and their toxic side-effects.

5 **Restore Long-Term Health**
Theme 5 to improve a return to expected levels of function and fulfillment.

4 PLATFORMS: GUIDANCE AND TOOLS TO SUPPORT PROJECTS

Research Services Platform

Resources, tools, and leveraging funding for projects

The CDTRP Research Services Platform supports the development of high-quality research in donation and transplantation by maximizing the effectiveness of research teams. It provides assistance in funding development, project management, patient, family, and donor partnership, and knowledge mobilization across the five research themes. The platform was restructured under a new operating model effective March 1, 2024, now providing research support through sustainable cost-sharing. When researchers request research services while preparing a grant application, they now receive a letter of support setting out CDTRP's in-kind contribution to their project, as well as an estimate for services that require space in their grant budget. This new model is a key part of CDTRP's sustainability strategy so we can continue to serve the community for years to come. Managed by CDTRP Research Services Manager Manoela de Paula Ferreira, the Platform continuously welcomes feedback from researchers on the types of supports that have the highest value for their projects and how the new model works for them.

Indigenous Health Equity Platform

Indigenous led, focusing on Indigenous priorities

In its first year, the CDTRP Indigenous Health Equity Platform, led by Dr. Caroline Tait, made significant strides in supporting Indigenous-focused research and community engagement. The platform provided essential staff support for research development and project planning, managed virtual events such as the Café Scientifique (see page 14), and facilitated six working group meetings. These efforts are all aimed at fostering collaboration and advancing Indigenous-led health research within CDTRP.

PFD Partnership Platform

An environment for patient, family, and donor partners to collaborate with researchers

The PFD Partnership Platform fosters collaboration between PFDs and researchers, integrating PFD voices throughout the research lifecycle of projects and network activities. In 2023-2024, the platform focused on deepening engagement with PFDs, enhancing infrastructure, and refining processes (see page 9 for the CDTRP Patient Portal update). We doubled our PFD membership compared to the previous year, hosted our 4th annual PFD Research Forum (see page 11), and expanded our training offerings. PFDs continued to benefit from opportunities such as the San'yas Indigenous Cultural Safety training, The First Nations Principles of OCAP, and various educational programs centered on donation, transplantation, patient engagement, and patient-oriented research.

Education and Career Development Platform

Networking and training to meet the needs of the donation and transplantation research community

In 2023, the CDTRP Education Platform, led by Dr. Matthew Weiss, Dr. Francis Migneault, and Ms. Ke Fan Bei, organized an oral presentation competition at the Annual Scientific Meeting, awarding Rising Star Awards to five trainees across CDTRP's themes. The platform also supported places in San'yas Indigenous Cultural Safety training and The First Nations Principles of OCAP course. The Platform also supported the ISODP Journal Watch project, communicating the most important new research findings to the donation community. Looking ahead to 2024, the CDTRP Education Platform, with Dr. Jonathan Choy joining as co-lead, aims to improve the structure and accessibility of the Platform, increasing clarity around opportunities and training resources. Additionally, the platform is working to provide more funding to trainees for opportunities such as attending the Annual Scientific Meeting, and to collaborate with partner organizations to expand training offerings.

5 CROSS-CUTTING PRIORITIES

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

1

Sex and gender, anti-racism, anti-ableism

2

Pediatric, adolescent, and elderly populations

3

Indigenous populations

4

Policy, commercialization, and knowledge transfer

5

Patient, family, and donor partnership

ADVANCES TOWARDS OUR GOALS

CDTRP Collaboration with Accelerating Clinical Trials (ACT) to Advance Randomized Controlled Trials

On January 19, 2023, the Canadian Institutes for Health Research (CIHR) announced that the ACT Consortium was awarded a federal grant for a three-year term, recognizing its commitment to addressing operational challenges in clinical trials across Canada. The ACT Consortium is a vast network comprising hundreds of investigators, patient partners, healthcare professionals, government representatives, and biotechnology industry members, along with skilled personnel such as study coordinators and biostatisticians. With members across the country, from Nova Scotia to British Columbia and Nunavut, this consortium includes 28 research networks and 11 clinical trial units dedicated to tackling the bottlenecks that impede the progress of clinical trials in Canada. CDTRP is one of the research network members of the ACT Consortium, aiming to support randomized controlled trials (RCTs) in donation and transplantation. With the leadership of Dr. Maureen Meade and the support of Research Services Manager Manoela de Paula Ferreira, the CDTRP Clinical Trials group was created in 2023.



TREAT-COVID: addressing critical issues and Therapeutics Emerging in Transplantation in COVID-19

The ongoing pandemic poses significant challenges for transplant recipients and their families, as COVID-19 vaccines have been found to be less effective for individuals with suppressed immune systems. This heightened vulnerability increases the risk of hospitalization and mortality among transplant patients, necessitating tailored prevention strategies. In 2023, CDTRP launched the patient-oriented study entitled TREAT-COVID. Collaborating with 11 transplant centers across the country, the study aims to develop a flexible national plan that will inform improved policies and enhance patient health outcomes.

The TREAT-COVID study focuses on three key areas:

1

Evaluate how safe and effective COVID-19 prevention and treatment methods are for transplant patients

Led by Drs. Dima Kabbani, Sarah Shalhoub, and Catherine Burton, this objective involves collecting clinical data from study participants through online questionnaires and medical records to assess the safety and effectiveness of evolving COVID-19 treatments.

2

Assess the mental health impacts of COVID-19 on immunocompromised patients and families and develop strategies to improve well-being

Led by Drs. Caroline Piotrowski and Istvan Mucsi, this objective will evaluate the physical and emotional well-being of organ and stem cell transplant recipients. Data will be gathered through Patient-Reported Outcome Measures (PROMS) and qualitative assessments, and will identify resources that can mitigate the adverse mental health impacts of COVID-19.

3

Analyze the economic burden and value of emerging and existing pre-prophylaxis and therapeutic options for COVID-19 in transplant patients

Led by Dr. Kednapa Thavorn, this objective will analyze the economic hardships faced by transplant patients and their families due to the pandemic, and the costs and value of COVID-19 treatments for the health system. Demographic and financial data, including caregivers, socioeconomic status, and health care utilization will be collected to gain insight into these challenges.

TREAT-COVID aims to recruit over 5,000 participants, including adult organ and stem cell recipients and their families, as well as pediatric organ transplant recipients. The project hosted National Prioritization Forums in June and December 2023. These forums served as platforms for engaging with various stakeholders in the transplant community—patients, families, caregivers, clinicians, trainees, researchers, government representatives, and industry members. The discussions facilitated the identification of urgent research questions and issues, informing the direction of the research.

CDTRP Patient Portal

portal.cdtrp.ca

In 2023, the CDTRP Patient Portal continued to evolve. Since its launch in 2021 with 150 resources focused mainly on the post-transplant journey, the Portal has grown significantly. It now offers over 300 resources covering both the pre- and post-transplant stages for recipients, families, caregivers, and living donors. Additionally, we've introduced the Patient Engagement Opportunities section, which has already received 28 requests from researchers and has accumulated 40 resources. The Portal also features national and international events relevant to patients, including webinars and sessions on topics like COVID-19 updates, finding a living donor, and patient engagement initiatives.

Compared to the previous year, the Portal experienced substantial growth, welcoming 1,700 users and recording 3,000 unique sessions—a 218% increase in new users and a 214% increase in sessions in 2023 compared to 2022. The majority of users came from Canada (75%), followed by the United States (12%), with the remaining users hailing from countries such as the United Kingdom, China, Brazil, Ireland, India, France, Germany, and the Philippines.




The Patient Engagement Resources section now serves as a comprehensive hub for PFD Research Partners, researchers, and trainees. It provides a wide range of educational materials designed to enhance patient engagement and collaboration. The user-friendly dashboard allows for easy keyword searches and resource access via pre-set tags. Currently, this section includes materials on Equity, Diversity, and Inclusion, ethics, training opportunities, Indigenous research, as well as specific resources for PFDs (e.g., understanding the difference between systematic and scoping reviews) and for researchers/trainees (e.g., Developing Patient Engagement Plans, Recruitment Checklists, Publishing Papers with Patient Partners).

In response to feedback from CDTRP PFD Partners, who emphasized the importance of clear communication and access to scientific research, our focus for 2024 will be the creation of a “Current Research” section within the Portal. This new section will be dedicated to translating complex scientific research into plain language, making it accessible to PFDs and the general public. It will highlight new research from the CDTRP Research Community, with trainees and PFDs collaborating on the development of lay summaries.



For PFDs, researchers, and trainees, our Patient Portal offers essential patient engagement resources. By bringing these elements together, the Portal is a trusted repository of credible information, helping the entire CDTRP community and beyond navigate the complexities of transplantation and patient engagement.

— Manuel Escoto,
PFD Partnerships and Education Platform Manager
and transplant recipient

The 2023 Patient Portal received funding support from sponsors including    une compagnie de endo international
an endo international company

MAJOR EVENTS IN 2023-2024

CDTRP Exercise Hub Meeting: Telerehabilitation in Solid Organ Transplantation

February 6 & 10, 2023

The CDTRP Exercise Hub organized a critical virtual 2-day meeting centered on advancing the practice of telerehabilitation for solid organ transplantation recipients. This event was spearheaded by the Exercise Hub's co-leads, Dr. Dmitry Rozenberg, Dr. Sunita Mathur, and Sherrie Logan.

The purpose of this meeting was to convene a select group of invited experts, including researchers, clinicians, patient-donor-family partners, and stakeholders in the rehabilitation of solid organ transplant recipients. The primary goal was to establish best practices and set research priorities in the rapidly evolving field of telerehabilitation. Given the growing need to adapt rehabilitation services to virtual platforms, particularly in the wake of the COVID-19 pandemic, this meeting was both timely and crucial for shaping the future of care for transplant recipients.

Over the course of the two days, participants engaged in in-depth discussions on a range of topics. These included exploring various virtual rehabilitation options and assessing their outcomes for solid organ transplant recipients. The meeting also addressed the limitations and barriers that patients and caregivers face when accessing rehabilitation services in a virtual environment. By identifying these challenges, the group aimed to develop strategies that would enhance the accessibility and effectiveness of telerehabilitation programs.

One of the key objectives was to widen the network of Canadian researchers and clinicians involved in solid organ transplantation and telerehabilitation. This expanded network is expected to foster greater collaboration, driving innovation and improving patient outcomes. The discussions also focused on how to best implement these practices within the virtual environment, ensuring that the care provided is both comprehensive and patient-centered.

By bringing together a diverse group of experts and stakeholders, this meeting marked a significant step forward in the effort to improve the rehabilitation of solid organ transplant recipients through virtual means. The CDTRP Exercise Hub remains dedicated to driving high-impact knowledge transfer and implementing best practices in telerehabilitation, ensuring that patients receive the best possible care, regardless of physical location.



2023 Patient, Family, and Donor Research Forum

June 8-9, 2023

The fourth edition of the Patient, Family, and Donor Research Forum took place on June 8-9, 2023, in collaboration with the Organ Donation and Transplantation Collaborative and the Canadian Society of Transplantation. Supported by 19 partners, the program aimed to share knowledge and build capacity in patient engagement and patient-oriented research, addressing the issues most important to PFD partners. It also informed the research community about emerging and best practices. This year's Forum focused on capacity building in patient engagement for CDTRP members and the public through presentations and priority-setting workshops.

The Forum was attended by 106 participants from 52 cities across Canada and globally. The Committee invited 20 speakers to present 11 topics within four thematic blocks over the two-day event, aligning with research processes in the donation and transplantation fields.


- 1** Integrating Patient, Family, and Donor Partners in Research Development and Funding;
- 2** Integrating Patient, Family, and Donor Partners in Research Execution;
- 3** Integrating Patient, Family, and Donor Partners in Knowledge Mobilization;
- 4** CDTRP Patient, Family, and Donor Priority Setting Workshops

“The PFD Research Forum is an opportunity to advance collaborations between researchers and patient, family, donor partners, and present research in donation and transplantation to key stakeholders.”

— Dr. Ruth Sapir-Pichhadze,
Forum Co-chair

19 Partners who supported the 2023 PFD Research Forum

- Alberta Transplant Institute
- BC Transplant
- Canadian Blood Services
- Canadian Liver Foundation
- Canadian Society of Transplantation
- Canadian Transplant Association
- Can-Restore
- Can-SOLVE CKD Network
- Canadian Society of Transplantation
- Kidney Foundation of Canada
- Newfoundland and Labrador SPOR SUPPORT Unit
- Saskatchewan Centre for Patient-Oriented Research (SCPOR)
- Stem Cell Club
- Swab the World
- Transplant Families
- Transplant Manitoba - Gift of Life
- Transplant Research Foundation of British Columbia
- University Health Network Ajmera Transplant Centre
- University Health Network Centre for Living Organ Donation

The 2023 PFD Research Forum was generously sponsored by  AstraZeneca

Premiere Screening of Fraser Allan Best's Film, *The Donor*

November 20, 2023

On November 20, 2023, CDTRP had the distinct honor of hosting the premiere screening of *The Donor*, a powerful short film by Fraser Allan Best. This deeply personal film delves into the complex and emotional dynamics of the donor-recipient relationship, drawing on Fraser's own experience of undergoing a living-liver transplant in 2020. Through a sensitive and insightful lens, *The Donor* explores the shared journey of living donation, capturing the profound uncertainties, shifts in identity, and radical vulnerabilities experienced by both donors and recipients.

Fraser Allan Best, a Toronto-based photographer and filmmaker, brings a unique perspective to his work, informed by his background in television news and his own life-changing transplant journey. After leaving his career as a Capitol Hill correspondent in Washington, D.C., to focus on his health, Fraser received a living liver transplant in 2020. Since then, he has dedicated himself to using documentary filmmaking to tell compelling stories about transplantation, including his ongoing project—a full-length documentary about his own transplant experience.

The screening event attracted significant interest, with 40 donors, transplant recipients, and members of the transplant community coming together for the film's premiere. The audience was deeply engaged with the film's portrayal of the intricacies of living-donor transplantation, resonating with the raw emotions and challenges depicted.

Following the screening, attendees had the opportunity to participate in an engaging Q&A session with Fraser Allan Best. The discussion was expertly moderated by Dr. Suze Berkhout and Chloe Wong-Mersereau from the University Health Network, both of whom brought their expertise and compassion to the conversation. This session provided a platform for attendees to delve deeper into the film's themes, offering insights into Fraser's personal journey and the broader implications of living donation. Attendees were able to ask questions, share their thoughts, and connect with the storyteller behind this impactful film.



The Canadian **Donation and Transplantation** Research Program
Programme de recherche en **don et transplantation** du Canada

PRESENTS

THE DONOR

A short film by **FRASER ALLAN BEST**

NOVEMBER 20, 2023

10th Annual Scientific Meeting

December 5-7, 2023

CDTRP was pleased to host its 2023 Annual Scientific Meeting on December 5-7, in a hybrid format in Montreal, QC. There were 100 participants who joined in person, and 101 virtual participants. Our Annual Scientific Meeting brings together the national research community to present and discuss the future of the donation and transplantation system, celebrate recent achievements, and examine the strategic direction of CDTRP.

Our Meeting opened with a heartfelt speech from a long-time CDTRP patient partner and double heart transplant recipient Sylvain Bédard, sharing his journey and challenges. This was followed by an overview of the network's decade-long work in "CDTRP: 10 Years in 10 Minutes." The sessions followed focused on engaging patient partners and marginalized groups, featuring panels discussing frameworks for evaluating CDTRP's impact. The need for diverse donors and addressing underrepresentation of racialized and LGBTQ+ donors was also highlighted. Breakout discussions emphasized inclusion, recognizing discrimination, understanding barriers to change, and fostering a culture of support.

The workshops in the meeting addressed COVID-19 in transplantation, covering motivators and barriers for enrolling in the TREAT-COVID study, methods to reach recipients and families nationwide, and improved communication strategies. Presentations also included a pediatric CXCL10 monitoring pilot RCT and a discussion on optimizing health status and wellness in liver transplantation from a holistic perspective. Media and communication specialists and PFDs Elaine Yong and Heather Badenoch offered tips to make research understandable to a lay audience, covering knowledge translation, crafting newsworthy stories, and interview techniques. The future applications of bioengineered tissues for transplant were also discussed. The conference concluded with a look into the future of CDTRP, focusing on organizational and sustainability updates. The 10th Anniversary Celebration Banquet featured inspiring presentations by a heart transplant recipient and professional athlete Simon Keith and stem cell transplant recipient Mai Duong who co-founded Swab the World.

For in-person attendees, we also hosted three special activities. Dr. Suze Berkhout and Chloe Wong-Mersereau from the University of Toronto presented a pop-up art installation, "Curating Critical Futurities in Transplant Medicine: Arts Practices as New Knowledge," exploring the complexities of solid organ transplantation through various artistic mediums, including Dominic Quagliozi's art pieces made from recycled hospital fabrics. Additionally, Dr. Holly Mansell and Taylor Raiche from the University of Saskatchewan showcased the Health Education & Learning Platform (HELP) mobile app prototype, aimed at improving the transplant journey. Lastly, Candice Coghlan from the Centre for Living Organ Donation at UHN hosted the "Great Actions Leave a Mark Photobooth & Living Transplant Podcast," allowing participants to share their stories and raise awareness about living organ donation.

The CDTRP 10th Annual Scientific Meeting was supported by:



Café Scientifique: Pathways to Truth and Reconciliation in Organ Donation and Transplantation


February 27, 2024


The "CDTRP Café Scientifique: Pathways to Truth and Reconciliation in Organ Donation and Transplantation," on February 27, 2024, was a landmark event aiming to shed light on the systemic barriers Indigenous patients, families, caregivers, community leaders, and healthcare providers face within Canada's organ and tissue donation and transplantation (OTDT) systems. This first national gathering brought together Indigenous voices to share lived experiences and expertise in OTDT, fostering a much-needed dialogue on equity and inclusion. The event underscored the importance of acknowledging and addressing these barriers as a critical step toward achieving truth and reconciliation in healthcare.

The event commenced with Welcome Remarks from Dr. Caroline Tait and Craig Settee, the host and facilitator, respectively, setting a tone of respect and collaboration. The keynote speaker, Grand Chief Stewart Phillip, delivered a powerful motivational talk titled "Call to Action: Prioritizing Organ Donation & Transplantation (ODT) for Indigenous People." His address emphasized the urgency of integrating Indigenous perspectives and priorities into the OTDT landscape, urging attendees to recognize the significant disparities and to take actionable steps toward rectifying them.


Throughout the event, attendees engaged in several thought-provoking lectures and panel discussions. These sessions focused on key topics such as the "Experiences of Northern and Remote Communities," which highlighted the unique challenges faced by Indigenous populations in accessing transplant services. Other panels addressed "Working with Indigenous People in Transplant Medicine", "Building Equity and Inclusion in ODT for Indigenous People", and "National ODT Strategy", offering insights into how healthcare professionals and policy makers can better serve the indigenous communities. The event concluded with an open discussion, providing a platform for attendees to voice their thoughts and reflections. Dr. Caroline Tait and Craig Settee then delivered the closing remarks, reiterating the commitment to continuing this crucial work. In a second block of presentations, learnings from the international Indigenous community were shared, primarily colleagues from Australia and New Zealand.

HOST **FACILITATOR**



Dr. Caroline Tait
University of Calgary



Craig Settee
Living Kidney Donor


Keynote Speaker


Grand Chief Stewart Phillip
Union of BC Indian Chiefs

SPEAKERS & PANELISTS


Celia Deschambeault
Director of Education for Nisto Awasissak Memorial School in Cumberland House Cree Nation


Dr. Jag Gill
University of British Columbia


Cindy Moriarty
Health Canada

RESEARCH INNOVATION GRANT HIGHLIGHTS

In the 2023 Research Innovation Grant competition, CDTRP and partners were thrilled to announce 12 new projects led by dedicated and visionary investigators, with a total funding value of \$360,000. This program, which supports both early-career and established researchers, is peer-reviewed and partnership-based. Our 2023 funding partners included the Transplant Research Foundation of BC, Kidney Foundation of Canada, Big Gifts for Little Lives, Alberta Transplant Institute/Paladin Labs Inc., University Health Network Multi-Organ Transplant Program, London Health Network Multi-Organ Transplant Program, and SickKids Transplant & Regenerative Medicine Centre. Two projects are highlighted below. The full list of new projects can be found in Appendix 1.

CINERGY BC: The Calcineurin Inhibitors in NEuRoloGically deceased donors to decrease kidney delaYed graft function (CINERGY)-Pilot randomized controlled trial (RCT)-British Columbia

PI: Dr. Frédérick D’Aragon

End-stage organ failure is complex and challenging for the Canadian health care system. Patients often require a transplant to save their lives.

Unfortunately, there is a growing gap between the number of donors and the number awaiting transplantation. In 2021, 4043 Canadians were on the wait-list, and 248 died waiting. While the rate of organs from deceased donors is increasing, the living donor rate decreases. One way to improve the rate and success of organ transplants is to improve deceased organ donor care. Once brain dead, physical reactions including swelling can be harmful to the organs being considered for transplant, affecting how well the transplant “takes” or survives within the recipient. Survival rates have improved over the years because of routine use of drugs that suppress the immune system and prevent rejection.

The team has initiated a small study to investigate the use of one of these commonly used medications (tacrolimus) in deceased donors to see if it is possible to obtain the information needed to prove that use of this drug during deceased donor management is beneficial for organ recipients in a larger study. While underway in Québec, they now plan to add two centres in British Columbia to test study feasibility, a revised recipient consent process, and report on provincial differences. Results of this study will inform researchers for the design of a future clinical trial on organ donor management; and final results will hopefully change practice, and improve the rate and success of transplant surgery in Canada.



“The CINERGY pilot trial is ground-breaking and has revealed the extraordinary complexity of research on interventions in the donor with the goal of improving outcomes for transplant recipients. CDTRP strives to make impossible research possible and we are proud to support this study focusing on how best to approach consent in this research context.”

— Dr. Patricia Gongal, CDTRP Executive Director

Reduction of proinflammatory damage to limit liver ischemia-reperfusion injury

Dr. Blayne Amir Sayed

Only fifty percent of Canadians on the waitlist in 2020 for liver transplantation received a transplant that year. This trend of insufficient number of organs available for the number of patients in need is projected to worsen. However, we are limited by the number of suitable livers that are available to transplant. To increase the number of usable livers, we need to have the ability to salvage and improve the function of more marginal organs. The research team has identified a novel strategy for inhibiting an essential protein involved in cell rupture induced by stress similar to what occurs during liver transplantation. This targeted therapy prevents a significant proportion of cellular and tissue injury in an animal model of liver injury. Interestingly, they still see an independent inflammatory pathway occurring despite this successful inhibition. They suspect that a more complete liver protection could be obtained by utilizing a combinatorial approach: inhibiting cell rupture AND the upstream inflammatory mediators. The objective is to investigate this approach using a mouse model of liver injury that they have expertise with. If successful, they believe they will have identified a foundational cellular strategy that will directly lead to a translatable approach in minimizing tissue injury during liver transplantation.

“Congratulations to Dr. Sayed; the SickKids Transplant and Regenerative Medicine Centre is pleased to collaborate with the CDTRP to support this important research investigating how to reduce proinflammatory damage to limit liver ischemia-reperfusion injury. We look forward to hearing the results of this work and its potential impact in minimizing tissue injury during liver transplantation.”

— Dr. Upton Allen, Interim Medical Director,
SickKids Transplant and Regenerative Medicine Centre

PARTNERSHIPS

Partnering with Industry

CDTRP has been dedicated to fostering a culture of collaboration, innovation, risk-taking, and inclusivity, embracing a diversity of ideas and people. Leveraging funding from our industry partners, we are advancing research for equitable benefits. In 2023, CDTRP revisited and strengthened its industry engagement strategy, exploring new ways to collaborate with different partners for mutual benefit. We are proud to have the support of Astellas, AstraZeneca, Paladin, and Takeda for diverse activities. Through these and other partnerships, sponsoring CDTRP events has become a powerful way to unite communities and support donation and transplantation research and education.

Partnering with the Canadian Society of Transplantation (CST)

Since 2013, CDTRP has partnered with the Canadian Society of Transplantation (CST) on numerous initiatives to support research and innovation that addresses barriers in donation and transplantation. In 2023, CDTRP collaborated with CST to continue offering joint awards for researchers with the best lay summaries of their work at the CST Annual Scientific Meeting. Adjudicated by PFD reviewers who are part of the CDTRP PFD Partnership Platform, the 2023 awardees were Mariana Leung for "Pre-transplant Multidisciplinary Assessment on Medication Adherence and Transplant Outcomes (PLATO)," Marie-Chantal Fortin for "The Impact of a Platform Sharing Creative Writing by Kidney Transplant Patients, Transplant Candidates, and Living Donors: A Mixed Methods Study," and Lucas Streith/Peter Kim for "Daytime Transplants: An Effective Province-wide Quality Improvement Project to Improve Outcomes." The awards were announced at the 2023 CST Annual Scientific Meeting in October in Winnipeg, Manitoba.

Donation after Medical Assistance in Dying (MAiD) Working Group

Canadian Blood Services (CBS) and CDTRP are collaboratively supporting the Donation after MAiD Research Working Group to explore and prioritize research opportunities in deceased organ donation following MAiD. The group, chaired by Vanessa Silva e Silva and Matthew Weiss, held its first meeting in December 2023, discussing the importance of studying donation after MAiD in Canada, PFD perspectives, and identifying key knowledge gaps. The group prioritized projects focusing on the state of donation across Canada, family experiences, retrospective outcome data, media coverage, public perceptions, and transplant outcomes. Participants included directors of organ donation and transplantation programs, as well as MAiD experts from organizations such as BC Transplant, Manitoba Science, Ontario Health, Transplant Quebec, and the Universities of Toronto, McGill, and Montreal.

The Next Ten Years of Transforming Lives

The Next Ten Years of Transforming Lives program, built in partnership with the Kidney Foundation of Canada, is an ambitious match-funding and research support program aimed at securing large-scale funding for high-impact research that transforms the lives of patients, families, and donors. By leveraging CDTRP's infrastructure, the project offers \$50,000 in match funding and extensive grant development support, including funding for pre-award PFD partner compensation. Proposals must be led or endorsed by a CDTRP Executive Member, build on previous network successes, and invest back into the CDTRP. The initiative encourages pan-Canadian and international collaborations, aligning with global funding opportunities. The pilot phase, starting in June 2024, will provide two awards, with additional awards planned based on evaluation of the pilot.

RESEARCH CONNECT

In 2023-2024, to promote knowledge exchange, the CDTRP Education and Career Development Platform hosted 19 webinars covering a range of topics across the five research themes (see Page 4). These sessions, led by trainees and PFDs, provided valuable insights into current research trends, keeping the community informed about the latest advances. Webinars attracted over 550 participants (around 20% PFDs) and more than 5,500 views on YouTube.

April 4, 2023	The challenge of missed organ donors: Can machine learning be used for early identification of potential donors? Dr. Michaël Chassé & Dr. Nicolas Sauthier
April 18, 2023	Developing a national research program: a practical guidance for researchers Amina Silva
May 2, 2023	Implementation of Donation Advisor: A personalized clinical decision support tool for improved efficiency and effectiveness of deceased organ donation and transplantation Dr. Sonny Dhanani
May 16, 2023	International Forum Outputs regarding Donation System Architecture, Consent Models and Emerging Legal Issues Dr. Matthew Weiss & Claire Williment
May 30, 2023	Repopulation of Long Segment Tracheal Allografts for Transplantation Dr. Golnaz Karoubi
June 13, 2023	Is the urobiome relevant for kidney allograft health? Dr. David Harriman
June 27, 2023	Enhanced sociodemographic variable collection in OTDT systems Dr. Murdoch Leeies
September 5, 2023	ARDOT Working Group: Discussing the Future Dr. Vanessa Silva e Silva
September 19, 2023	Packaging validation for the safe transportation of organs and tissues for transplants Sibele Schuantes
October 3, 2023	Explainable multimodal deep learning for informing bespoke goal-directed anesthesia in kidney transplantation Dr. Rohit Malyala

- October 17, 2023** **Treg exhaustion : Myth or reality?**
Dr. Caroline Lamarche
- October 31, 2023** **Welcome to Wellness: An Overview of Calgary's
Transplant Wellness Program**
Dr. Nicole Culos-Reed & Dr. Maneka Perinpanayagam
- November 14, 2023** **Sowing seeds of trust: How trust in Normothermic Regional
Perfusion is built on an ethics of care an interview study
of stakeholders**
Dr. Mary Ott & Dr. Charles Weijer
- November 28, 2023** **Emergency nurses perceptions of donation after uncontrolled DCC**
Kendra-Lee Dupuis
- January 23, 2024** **Stories as Method: Exploring Complexities in Liver Transplant
through Digital Storytelling**
Dr. Suze Berkhout
- February 6, 2024** **Perspectives on Precision Medicine and Molecular Matching in
Kidney Allocation from Canadian Kidney Transplant Professionals
and Patients**
Dr. Marie-Chantal Fortin & Dr. Ruth Sapir-Pichhadze
- February 20, 2024** **Investigating Kidney Tissue Responses to Donor Specific
Antibodies in Antibody Mediated Rejection**
Dr. Ana Konvalinka
- March 5, 2024** **From Idea to Impact: An Introduction to Intellectual Property and
Commercialization**
Dr. Iva Bruhova
- March 19, 2024** **Effect of a multicomponent intervention to improve patient access
to kidney transplant and living kidney donation**
Dr. Amit Garg & Dr. Seychelle Yohanna

Excellent platform, especially for blossoming researchers!

— Audience Member

Thank you to our sponsors for supporting this event!



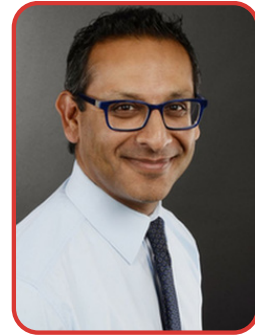
THE CDTRP TEAM



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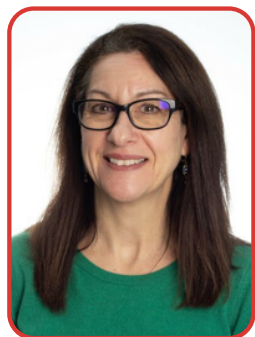
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In early 2024, we said fond farewells to management team members Stéphanie Larivière and Demitra Yotis who moved to the next chapter in their careers. We wish them all the best in their future endeavors!

IN MEMORY

On March 28, 2024, the kidney and transplant community lost a tireless advocate, colleague, and friend with the passing of Mary Beaucage, CDTRP PFD Research Partner and Theme 1 co-lead.

Mary was a mentor who has left a lasting mark on the kidney, donation, and transplantation community. Mary was a kidney transplant recipient deeply committed to leveraging her personal experiences to enhance research, support patients, families, and organ donors on their transplant journeys, and strengthen patient-oriented research. As a proud Anishinaabekwe from Nipissing First Nation and gifted storyteller, Mary extended her expertise beyond the CDTRP community. She spoke at national and international conferences where she passionately educated researchers about indigenous health, patient partnerships, and brought awareness to organ donation.



EQUITY, DIVERSITY, AND INCLUSION

Since its inception, the Canadian Donation and Transplantation Research Program (CDTRP) has valued diversity, equity, and inclusion from both an organizational (e.g. membership) and a research lens (e.g. supporting health equity). Rather than relying on a specific EDI committee, we endeavour to make daily value-based decisions across our core activities, including governance. CDTRP strives to be an organization where everyone with something to contribute to donation and transplantation research feels they belong.

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 – now 464 individuals strong.

- Our membership is composed of 60% women, 38% men, and 2% minority genders (agender, bigender/multigender, non-binary, and other genders).
- 9% of all CDTRP members identify as having a disability. Most individuals with disabilities are PFD partners; only 2% of researchers/trainees identify as having a disability.
- The CDTRP membership is very diverse in terms of race: 48% of CDTRP members are members of racialized groups, compared to approximately 25% of the general Canadian population.

In 2023-2024, we recognized a focus on EDI and PFD and community partnerships would benefit the quality and reach of our network's research. A persistent challenge faced by researchers is the recruitment of PFDs, particularly among Black, Indigenous, and people of colour (BIPOC) and sexual and gender minorities (SGM). The need for effective patient engagement became increasingly evident during the COVID-19 pandemic as PFDs felt disempowered due to inadequate information, engagement, and support from the transplant ecosystem. Through the TREAT-COVID project (see page 8), we are undertaking extensive community partnership-building activities to co-develop research priorities, recruitment, communications, and knowledge translation materials related to the project. Our vision is to steward and sustain these partnerships in the long-term, which will support the development of research projects that better serve the needs priorities of all diverse Canadian donation and transplant communities.



FOUNDING PARTNERS

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



APPENDIX 1

2023 CDTRP Research Innovation Grant Recipients

Funding Partner	Recipient Name	Project Title
CDTRP UHN Research Innovation Grant	Mamatha Bhat	Development of a Machine Learning Tool for Non-invasive Diagnosis of Liver Graft Pathology
CDTRP Research Innovation Grant	Frédéric D'Arçon	CINERGY BC: The Calcineurin Inhibitors in NEuRoloGically deceased donors to decrease kidney delaYed graft function (CINERGY)-Pilot randomized controlled trial (RCT)-British Columbia
Transplant Research Foundation of BC/CDTRP Venture Grant	Jagbir Gill	A unique reciprocity-based strategy to improve living kidney donations in British Columbia: Focus group consultations
CDTRP Big Gifts for Little Lives Research Innovation Grant	Michael Khoury	Utilizing Exercise Cardiovascular and Skeletal Magnetic Resonance Imaging to Evaluate Factors Associated with Cardiorespiratory Fitness in Pediatric Heart Transplant Recipients
Transplant Research Foundation of BC/CDTRP Venture Grant	James Lan	Accelerating the Translation of a Novel Luminex Anti-ABO Antibody Detection Technology to Expand the Use of ABO-Incompatible Transplantation in Canada
CDTRP KFOC Research Innovation Grant	Murdoch Leeies	Sexual Orientation and Gender Identity in Organ and Tissue Donation and Transplantation (OTDT) A curriculum in cultural competency for OTDT healthcare teams in Canada
CDTRP KFOC Research Innovation Grant	Maureen Meade	Guidelines for Sequential Participation of Transplant Recipients into Donor Intervention Trials and Subsequent Transplant Trials
Transplant Research Foundation of BC/CDTRP Venture Grant	Christopher Nguan	Machine learning enabled optimization of perioperative hemodynamics in renal transplantation
CDTRP SickKids Research Innovation Grant	Blayne Amir Sayed	Reduction of proinflammatory damage to limit liver ischemia-reperfusion injury
Transplant Research Foundation of BC/CDTRP Venture Grant	Mypinder Sekhon	Characterizing the cerebrovascular physiology of circulatory death during withdrawal of life sustaining therapies in humans
CDTRP ATI/Paladin Research Innovation Grant	Simon Urschel	Exploring the lived experience of pediatric heart transplantation from patient and family perspectives
CDTRP ATI/Paladin Research Innovation Grant	Jason Weatherald	Lung Transplantation Research Priority Setting Partnership
CDTRP LHSC Research Innovation Grant	Charles Weijer Marat Slessarev	Needing an international collaborative to produce guidelines for the conduct of randomized controlled trials of organ donor interventions

ACKNOWLEDGEMENTS

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

This report was prepared by Shiyuan Bian, Manuel Escoto, Amanda Chwelos, and Patricia Gongal.

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