



CLINICAL  
TRIALS  
ONTARIO

# 2018-2019 Annual Report



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# 1 About Clinical Trials Ontario



Clinical Trials Ontario is a leading non-profit organization in the clinical trials community dedicated to strengthening, promoting and capitalizing on Ontario's competitive advantages for conducting high-quality clinical trials. We work collaboratively with industry, research institutes, patients and the public and other health innovation organizations to improve the clinical trials environment and attract investment to the province, while supporting the highest ethical and quality standards.

## Our Mission

Our mission is to strengthen, promote and capitalize on Ontario's competitive advantages to conduct high-quality clinical trials.

## Our Vision

Our vision is to make Ontario a preferred location for global clinical trials, while maintaining the highest ethical standards.

## Strategic Priorities



**Streamline** processes to help make high-quality clinical trials more timely, efficient and cost effective.



**Engage** with patients and the public in Ontario's clinical trials ecosystem to improve how trials are done and help drive the delivery of new therapies and innovations.



**Promote** Ontario's competitive advantages and clinical trial capacities to attract more trials and industry investment to the province.

# Collaborating for more & better clinical trials in Ontario

## Joint Message from CEO & Board Chair



Collaboration is a key ingredient of a successful clinical trial. A single study can bring together patients and families, health charities, philanthropists, industry sponsors, government funders, ethics reviewers, researchers, coordinators, healthcare providers and many more. All of these groups are working together towards a common goal: developing new treatments for people who desperately need them.

Since the beginning, collaboration has been the cornerstone of our work at Clinical Trials Ontario. Our role has been listening the needs of the clinical trials community

and partnering to find new ways of reaching that common goal more quickly and effectively. With ongoing engagement and dedication from the community, we have taken bold steps to deliver on our mandate of improving the environment for clinical trials, engaging patients and the public and compelling industry to choose Ontario for their next opportunity.

CTO Stream, our flagship program that allows a single ethics review for multi-site clinical trials, has cemented its place in Ontario's clinical trials ecosystem and it continues to grow. This visionary program was built by the clinical trials community, including highly

qualified and committed Research Ethics Boards, and was officially launched in 2015 to make trials faster, less resource-intensive and more efficient. Today, the program supports nearly 1,000 research studies, with participation from 20 CTO-Qualified REBs, 104 trials sites and more than 90 pharmaceutical and medical device companies.

Building on this momentum, institutions and industry sponsors worked with CTO to launch the QuickSTART program this year. QuickSTART enables clinical trial sites and industry sponsors to achieve trial activation within just 90 days by setting targets

and establishing standardized processes. Three engagements were successfully completed in QuickSTART earlier this fall, and we are thrilled to see more studies engaging with this community-built program. We also brought together representatives of more than 80 Ontario-based clinical trials sites with our new Trial Site Network, enabling CTO to provide industry with warm introductions to interested hospitals and research institutions.

Working in lockstep with patient groups and health charities, we're making it easier for patients and the public to engage with clinical trials by co-developing new tools and resources. Our new Clinical Trial Finder, launched this spring, is the only resource of its kind in Canada that uses plain language and allows people to search for active Canadian trials by location, disease and demographic. This year, we also published new online education modules and decision aids that walk people through the decision process of participating in a clinical trial or joining a clinical trial team.

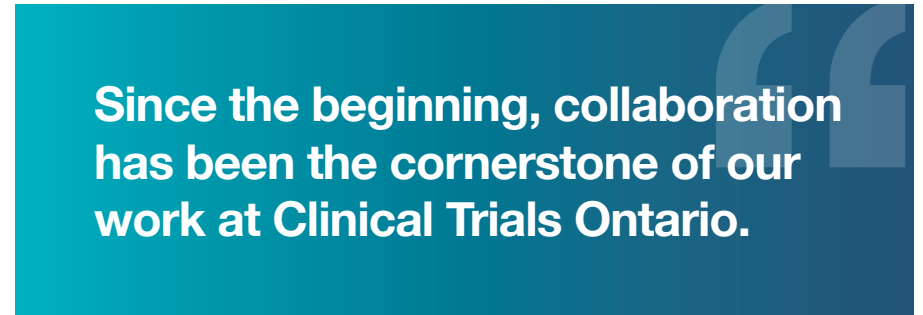
All of this success is owed to our

community's shared vision of a stronger clinical trials environment and, ultimately, more opportunities for Ontarians to access new treatments and technologies that will improve their daily life. Because that's what it's all about: better health for Ontarians and for the future.

As we celebrate our shared achievements in this report, we would like to thank the Government of Ontario for its recognition of vital role that clinical trials play in this province and for its continued support of our community's work. We also thank our dedicated team, our Board of directors, and the members of our clinical trials community who are tireless in their efforts to discover the treatments of tomorrow, today.

**Susan Marlin**  
President & CEO

**Raphael (Rafi) Hofstein**  
Board Chair





# 2 Clinical Trials are Vital for Ontario

“**Rianna has actually benefited directly from two of her clinical trials, but there are some clinical trials that we’ve done that she’s never going to benefit from – but someone else will.**”

— **Lina Bhardwaj, mother of Rianna who is living with cystic fibrosis.**



## Supporting Ontarians & the Economy

Clinical trials play a central role in supporting Ontarians and the economy. They improve health and quality of life by advancing and testing the safety and efficacy of new treatments, devices and enhanced diagnostic tools. They also stimulate the economy by attracting investment, generating new jobs and attracting and retaining top talent.

### Supporting the Economy & Good Jobs

**\$410M**

in industry investment in Ontario clinical trials in 2017

**26,000+**

jobs in medical devices

**30,000+**

jobs in drugs and pharmaceuticals

**18,000+**

employed researchers/staff in academic hospitals

**23.6%**

higher wages than the average salary

### Moving Critical Care Forward, Faster

**200+**

trial sites across Ontario support patients from all communities

**3,800+**

Ontarians were able to participate in 3,800+ open clinical trials in 2017

**6,000**

Nearly 6,000 Ontarians participated in cancer clinical trials alone

# Preferred destination for global clinical trials

Among the top ten largest clinical trials jurisdictions in North America, Ontario is home to Canada's largest concentration of hospitals, research institutes, contract research organizations and trial sites. CTO is helping Ontario capitalize on its thriving health and life sciences environment to attract industry investment and become a preferred destination for clinical trials.



**7th largest clinical trials jurisdiction in North America**

**3,800+**  
open clinical trials

**23 academic hospitals including 6 of Canada's top 10**

**2,200+**  
biotechnology, medical device & digital health companies

**Diverse population of more than 13 million people**

**Global leadership in key areas including cancer, focused ultrasound, regenerative medicine and more**

## Ontario is leading the way



A landmark clinical trial at UHN, which proved that fibrinogen concentrate is effective and beneficial to patient welfare, has created a safer blood supply system in Canada.



The Ottawa Hospital developed an approach for experimental CAR-T cancer treatment, and is leading the way nationally in testing it in a clinical trial.



A multi-centre registry trial, led by researchers at Lawson Health Research Institute, is testing the use of a new imaging tracer for early detection of recurrent prostate cancer. The Trial will give 1,500 Ontario patients access to a new type of imaging and will assess the impact on patient care.

**Read about Ontario's success**





# 3 Our Impact & Achievements



**“We look at jurisdictions everywhere in the world. Ontario has been one of the top performers in a number of our trials.”**

**– Neil Fraser, President, Medtronic Canada**

## Increasing Investment in Ontario Clinical Trials

**Ontario has seen a nearly \$100 million increase in biopharma investment, from \$322 million in 2013 to \$410 million in 2017. Ontario has also established itself as Canada’s top destination for clinical trials, with more than half of Canada’s clinical trials conducted here.**

With clinical trials playing such a pivotal role in our health care system and our health and life sciences economy, Ontario has an opportunity to grow the clinical trials industry. CTO was established by a cross-sectoral group of leaders in 2012 to do just that, and with ongoing engagement and input from our community, we have helped to increase investment in Ontario clinical trials.

Our collective impact is the result of the clinical trials community’s hard work to continue streamlining clinical trials processes, engaging with more patients and members of the public to improve trial conduct, and promoting our province’s advantages and assets to attract more clinical trials to Ontario.

### Industry is Choosing Ontario

Industry sponsored trials are supporting innovative therapies in key conditions including oncology, cardiovascular disease, diabetes and more.

Large multinational companies choose Ontario as a destination for clinical research.



### Industry is Investing in Ontario



Triphase Accelerator, a Toronto-based drug development company, struck a collaborative deal with Celegne Corporation worth nearly \$1 Billion for blood cancer treatment.



Fusion Pharmaceuticals, a Hamilton-based clinical-stage biopharmaceutical company, raised \$105 Million in Series B financing for the development of targeted alpha-particle radiotherapeutics for treating cancer.



Synaptive Medical Inc., a Toronto-medical device and technology company, and Sunnybrook Health Sciences Centre created a partnership to foster safer outcomes for Canadians with Image-guided Therapy Technologies that led to an investment of up to \$49 million from Canada's Ministry of Innovation, Science and Economic Development.

[Read about Ontario's success](#)

## Facilitating faster, more effective clinical trials



### CTO Stream

Launched in 2015, CTO Stream is one of the largest collaborations in Ontario's health research sector, built by researchers, research ethics boards and industry leaders. Since then, it has become essential for conducting high-quality, efficient multi-site clinical trials in Ontario. The innovative online system enables all research sites participating in a clinical trial

to undergo a single ethics review rather than separately applying to their local research ethics boards, reducing the time and labour required to obtain research ethics approval. By driving efficiency and reducing red tape, CTO Stream has provided more than \$5 million in estimated cost savings to the public system.

CTO Stream is now an essential part of Ontario's clinical trials ecosystem. To better support our growing number of users, CTO Stream will be introducing an online Helpdesk and ticketing system in late 2019.



## CTO Stream by the Numbers

**\$5M+**

Estimated cost savings to Ontario

**960+**

Research studies

**104**

Participating hospitals and research sites, including Ontario's most active trial sites

**2,850+**

Applications for research ethics approval received

**90+**

Pharmaceutical and medical device companies

**84%**

Percentage of sites obtain research ethics approval in less than one month

**20**

Qualified Ontario research ethics boards provide multi-site ethics review

**50%**

Percentage of sites obtain research ethics approval in less than one week



**“CTO Stream was beneficial for me, as I got access to information and was able to follow up with sites to move the study along.”**

— Claudia De Paola, Pfizer Canada

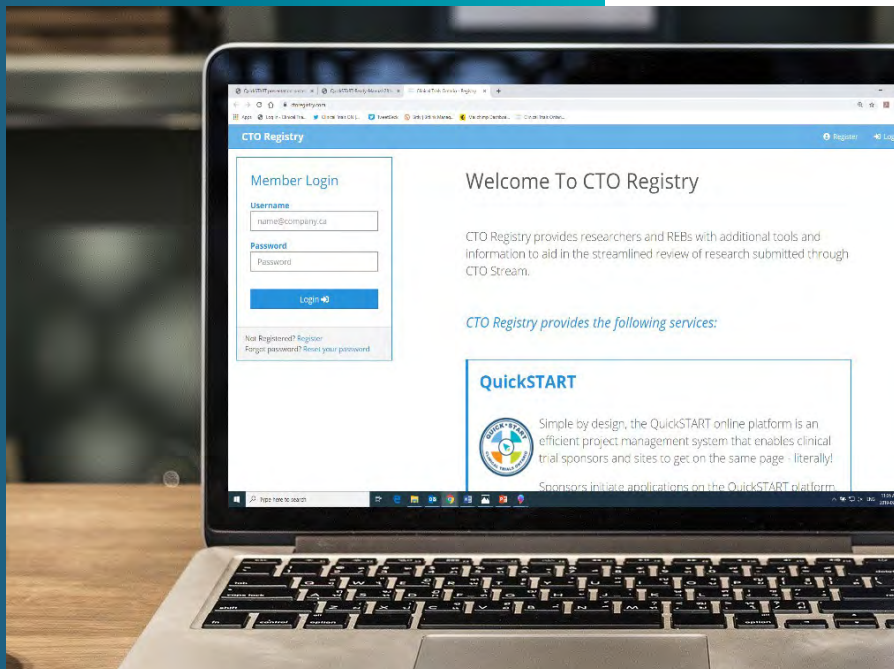


[Join CTO Stream](#)



## QuickSTART

A typical clinical trial can take more than five months to get started, which drains time, resources and energy for research institutions and industry sponsors. QuickSTART, a program developed by Clinical Trials Ontario (CTO), is significantly speeding up this process. Launched as a pilot in early 2019, QuickSTART enables clinical trials sites and industry sponsors to develop authentic partnerships, set targets and enhance existing procedures without disrupting them, all to improve efficiency and achieve activation within just 90 days.



## Key Pilot Outcomes

1

Shared interface creates transparency and enables authentic partnerships between industry and institutions

2

Dynamic and flexible platform does not disrupt internal procedures, but enables a more streamlined approach to setting milestones and meeting timelines

3

Setting transparent targets, responsibilities and mutual agreement at the outset gives participants license and support to move the process forward

### QuickSTART Pilot by the Numbers

- 90 days** Reducing trial start-up times from 5+ months to just 90 days
- 8+** Research sites are QuickSTART ready and the list is growing
- 5+** Industry sponsors are QuickSTART ready and the list is growing
- 7** Research engagements participating in the QuickSTART pilot
- 3** Successful completions of QuickSTART during pilot phase

“The improved start-up timelines exceeded our expectations and we look forward to repeating the experience.”

— Monique Lacroix, Country Head, Global Development Operations/Trial Monitoring, Novartis

“Going through this exercise showed us that a 90-day start-up goal is in fact achievable when all parties are actively engaged and work together toward a common goal.”

— Dr. Bradley G. Wouters, Executive Vice President, Science and Research, University Health Network

[Join QuickSTART](#)



## Research Ready

The Research Ready program is strengthening Ontario's world-class health research infrastructure by helping to ensure that Ontario research institution staff have the skills and knowledge to conduct effective and efficient clinical trial.



20+ participants in online community of practice sharing best practices



New Training and Resources guide co-created with community input in 2019



New Research Ready Advisory Group established in 2019 to provide direction and input on educational resources

[Join Research Ready](#)





## Improving Patient & Public Engagement with Clinical Trials

CTO is committed to developing ways to better engage patients and the public with clinical trials. We work closely with health charities and patient organizations to understand their needs and the needs of their communities. Everything we do to promote patient and public engagement in clinical trials is driven by their input. Together, we are raising public awareness of clinical trials, creating new resources to learn and access clinical trials, and supporting researchers and healthcare providers in their interactions with patients around clinical trials.

### Clinical Trial Finder app designed by patients, for patients



This year CTO launched the Clinical Trial Finder, a new online search tool

that helps Canadians look for active clinical trials using a range of criteria, including condition, location and demographics. The tool was co-developed with guidance and input from CTO's community of patient organizations and health charities, and is the first plain-language trial finder tool of its kind in Canada.

Since its launch in the spring of 2019, the tool has had nearly 2,000 visits and more of our health charity and patient organization partners are placing the Trial Finder widget on their websites.

[Visit Clinical Trial Finder](#)

### New engagement tools for patients and providers

In addition to the Clinical Trial Finder, CTO has created new patient- and public-friendly online resources, including information to walk an individual through the process of participating in a clinical trial and decision aids for patients and investigators considering patient engagement on research teams. Like the Clinical Trial Finder, these tools were co-developed with input from health charities and patient organizations. In Fall 2019, all of CTO's online patient and public resources will be translated into French, expanding their value to all Canadians.

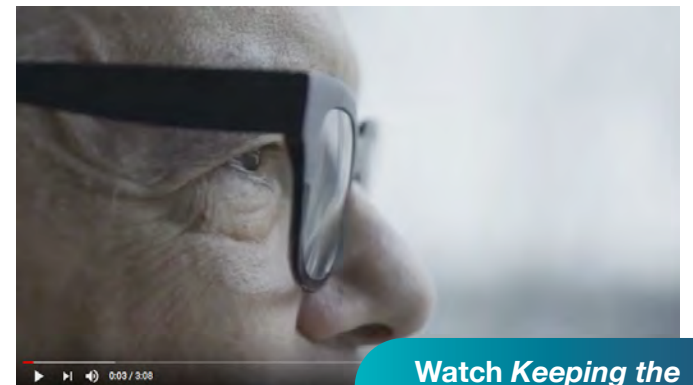
[Visit CTO's Online Resources](#)

**“Clinical trials give people hope, and also reflect the ever-changing evolution of medicine and the medical field.”**

— Lara Ceroni, Toronto, Ontario



**Read Lara Ceroni's story**



**Watch *Keeping the Science Ahead of Me***

## #TalkClinicalTrials

CTO's #TalkClinicalTrials continues to build momentum with the launch of a new collaborative blog series. The series tells real stories about patient and public engagement with clinical trials and their importance for driving the future of medicine.

We remember Aldo Del Col, who passed away in 2019. As a leading voice in the patient community, CTO worked with Aldo to understand the needs of patients and the public with respect to engaging with clinical trials. His visionary commitment to advancing healthcare through research and his tireless advocacy for patients and caregivers will continue to inspire our work at CTO.

**“It's through patient participation in clinical trials that we advance the science and develop new treatments that keep us living longer.”**

— Aldo Del Col, Co-founder of Myeloma Canada

**“An engaged patient community identifies what is relevant and important.”**

— Durhane Wong-Rieger, President and CEO, Canadian Organization for Rare Disease

## Bringing voices together

CTO has built relationships with health charities and patient organizations that help develop and distribute CTO resources within their communities and collaborate with CTO to move the needle on better patient and public engagement with clinical trials. This year, 12 health charities worked with CTO to submit input to Health Canada on their draft guidance on “The Distinction Between Promotional and Non-promotional Messages and Activities for Health Products” and on the International Council on Harmonization’s public consultation concerning revision of the ICH E8 Guideline on General Considerations for Clinical Studies.

We wish to thank this community for their ongoing support and engagement





# Connecting Industry into Ontario's Clinical Trials Ecosystem

## Industry Concierge & Trial Site Network

CTO's Industry Concierge service continues to help connect industry sponsors into Ontario's clinical trials ecosystem. This year, we established a new Trial Site Network which enables industry to connect directly with Ontario's agile, efficient and high performing trial sites. The Network is comprised of highly engaged research personnel representing more than 80 research institutions, hospitals and trial sites across the province. With this new service, CTO can provide any company or start-up looking to conduct a clinical or observational study in Ontario with a warm introduction to

representatives from participating sites. The trial sites can also utilize the Network to expand their clinical trials activities.

**80+** Trial sites participating in CTO's Trial Site Network

**75+** Organizations have connected with CTO's Industry Concierge Service to discuss opportunities in Ontario's clinical trials ecosystem

**“Clinical Trials Ontario has been instrumental in connecting us with those clinical teams who share our vision for improving the health of people by leveraging the leading-edge of technology.”**

— Dr. Alexander Bilbily, CEO and Co-founder, 16 Bit Inc.

**“The CTO Trial Site Network is an important initiative providing our researchers with access to novel trial opportunities. An instrumental part of any growing research program is networking and access to networking tools to facilitate the connections between Sponsors, Institutions and their Researchers. We are confident the CTO Trial Site Network will help us develop new partnerships and make a positive impact on the type of trials we can offer to our patients in the future.”**

— Kelly Cruise, Clinical Research Coordinator, Royal Victoria Regional Health Centre

**Connect with the Industry Concierge & Trial Site Network**



**“Clinical trials give patients hope that they might not otherwise have. Every day, more than 61,000 people in Ontario get up and work on delivering lifesaving therapies.”**

- The Honourable Todd Smith, then Minister of Economic Development, Job Creation and Trade and now Minister of Children, Community and Social Services for the Government of Ontario, shared opening remarks at our BIO event.

## Promoting Ontario at BIO 2019

CTO showcased the Ontario-Quebec clinical trials corridor at the 2019 BIO International Convention in Philadelphia on June 3, 2019. We co-hosted a session on Rare Disease and Genomics, in partnership with Ontario Genomics, Montreal InVivo and Genome Quebec, and in collaboration with Biogen, Pfizer Canada and Takeda. More than 170 representatives from multi-national pharmaceutical companies, biotech companies,

contract research organizations, academia and the Ontario and Quebec governments attended the session which discussed the exciting impact of genomics on the development of individualized therapies. BIO 2019 attracted more than 16,000 biotechnology and pharma leaders from across 67 countries.

## Supporting start-ups in Ontario’s clinical trials community

CTO co-hosted a sold-out event during Toronto Health Innovation Week on April 5th, 2019 in partnership with local clinical ecosystem organizations including Women’s College Hospital’s Institute for Health System Solutions and Virtual Care (WIHV), St. Michael’s Hospital’s Applied Health Research Centre (AHRC), TOHealth! and University of Toronto’s H2i. More than 50 clinician entrepreneurs, start-up

representatives and others learned about Ontario’s clinical trials advantages and how CTO can help connect them into the ecosystem through our Industry Concierge service and other programs.



# 4 CTO Conference

As one of the largest conferences of its kind in Canada, the CTO Conference is among Ontario's most important knowledge exchange and networking opportunities within our clinical trials ecosystem. On March 27th and 28th, 2019, the Clinical Trials Ontario conference brought together nearly 500 members of the clinical trials community, including leaders from the pharmaceutical and medical device industries, academic and healthcare leaders, representatives from patient groups, health charities, government, and research institutions from Canada and the US.

Hosting the annual conference is just one of the ways that CTO improves the climate for clinical trials in Ontario and attracts business to the province. Speakers at the 2019 conference discussed how we can improve clinical trials today while preparing the ground for an even stronger clinical trials environment in the future. Harnessing artificial intelligence, improving patient engagement, and streamlining clinical research were key topics at this year's CTO conference. We also introduced our first annual Innovation Showcase, which enabled Ontario-based health start-ups to connect with guests and generate partnerships.

**“CTO’s annual conference always provides content that is inspiring and practical and this year’s speakers gave thoughtful insights into the impacts of digital technology on clinical research.”**

— Cheryl Litchfield, Manager of Grants and Contracts, Lawson Health Research Institute

**“We wanted to be here to be here to interact with the clinical trials community at large. Everyone is here together sharing different viewpoints – technology, patients, pharma and the community.”**

— Julie Publicover, Program Manager, QICPM advanced Imaging Core Lab

## 2020 CTO Conference

March 24th-25th, 2020 | Toronto, ON

[Register Today](#)

### CTO Conference by the Numbers

**480+ Registrants**

**36 Speakers**

**10 Innovation Showcase participants**



**13% Health Charities & Patient Groups**

**16% Health Industry**

**71% REBs, Hospitals, Research & Government**



# 5 Governance & Financials



## CTO Board of Directors

We have strong governance from an effective Board of Directors dedicated to advancing patient care while serving the interests of government, industry, clinicians, patients and other stakeholders. Our skills-based Board provides oversight and guidance as Clinical Trials Ontario advances its important work.

Raphael Hofstein   Chair	President and Chief Executive Officer, Toronto Innovation Acceleration Partners (TIAP)
Dr. Bradly Wouters   Vice Chair & Secretary	Executive VP, Science & Research, University Health Network
Ed Dybka   Treasurer	President & General Manager, Ipsen Biopharmaceuticals Canada
Tina Ceroni   Member	Clinical Trial Participant
Anne Ellis   Member	Associate Professor and Chair, Division of Allergy & Immunology, Department of Medicine, Queen's University
James Wilson   Member	President, Brancorth Medical Inc.
Bev Heim-Myers   Member	Chair, Canadian Coalition for Genetic Fairness
Mark Lundie   Member	Director, Medical Affairs, Rare Diseases, Pfizer Canada
Clive Ward-Able   Member	Former Executive Director, R&D Amgen

## Financials

### Assets

	2019	2018
Cash	\$ 696,347	\$ 823,833
Guaranteed investment certificates	20,000	20,000
Accounts receivables	541,524	237,610
HST receivable	32,123	14,843
Prepaid software costs	98,056	56,551
Prepaid insurance and deposits	116,279	56,510

### Liabilities & Net Assets

	2019	2018
Accounts payable and accrued liabilities	\$ 562,703	\$ 179,723
Deferred contributions	138,135	695,614
	700,838	875,337
Net assets (unrestricted)	803,500	334,010
	<b>\$ 1,504,338</b>	<b>\$ 1,209,347</b>

# 6 Contact Us

## Work With Us

Clinical Trials Ontario offers a wide variety of programs to the clinical trials community to help collectively improve the environment for clinical trials in Ontario. Contact our team to learn more about how you can get involved with our services and programs.

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