

Complete Summary for Strategic Planning 2023 – 2028

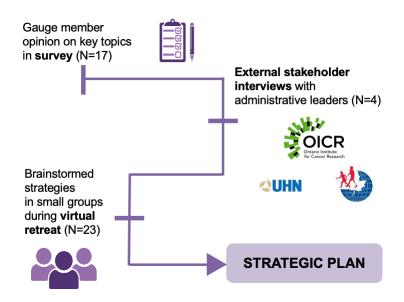




TABLE OF CONTENTS

Key Highlights	3
A. External Stakeholder Interviews	4
Dr. Penuela & Ivan - OICR (Dr. Christine Williams & Dr. Laszlo Radvanyi) - 11/28/2023	4
Dr. Bauman & Justine - Dr. Liu - 11/29/2023	6
Dr. Bauman & Josh - UHN (Dr. Brad Wouters) - 11/27/2023	8
Dr. Allan & Unnati - Terry Fox Research Institute (Dr. Jim Woodgett) - 01/10/2024	9
B. Survey Results	12
Section 1: Assess Past CTCR Activities	12
Section 2: Trainee Engagement in the CTCR	14
Section 3: Equity, Diversity, Inclusion (EDI) and the CTCR	16
Section 4: Membership within the CTCR	17
Section 5: CTCR Governance	18
Section 6: CTCR Leadership & Advocacy	19
Comments	22
Actionable	22
General Comments	23
C. Virtual Retreat	25
Exercise 1: CTCR will be receiving \$1M annually for 3 years. Imagine you are the Director of th CTCR:	e 25
Group 1: Dr. Allan, Dr. Petrik, Dr. Thiessen, Dr. Dekaban, Dr. Wong, Dr. Dick	25
Group 2: Dr. Penuela, Dr. Shepherd, Dr. Mymryk, Dr. Welch, Dr. Ronald, Ivan	27
Exercise 2: Revitalizing the Modern day "CaRTT" program. Imagine you are the Director of the	CTCR:
	30
Group 1: Josh, Unnati, Dr. Timothy Scholl, Dr. Pingzhaeo Hu, Dr. Lisa Porter	30
Group 2: Dr. Len Luyt	33
Member comments (email)	34

This is a detailed document encapsulating the Centre for Translational Cancer Research's (CTCR) strategic evaluations, stakeholder interviews, and future plans. The document highlights feedback and actionable insights from various stakeholders, virtual retreat, and member survey, detailing potential strategies to amplify CTCR's impact and ultimately foster innovation and collaboration within the cancer research community. Below is the data used to help create the **2023-2028 Centre for Translational Cancer Research (CTCR) Strategic Plan**.





Key Highlights

"CTCR visibility at the Schulich or the university is not currently high. Rather than trying to raise the status to the institute level, all efforts should be invested to raise the quality and visibility of the CTCR"

"Increase regular opportunities/mechanisms for greater collaboration between basic scientists, clinicians, and other multidisciplinary researchers, not just within the specific teams that are already established but more widely across the CTCR Membership"

"We should simply adopt the UWO EDID guidelines."

"It would be of interest to our cancer research community to develop a seminar series to educate researchers about how cancer patients are treated. Providing an understanding of how systemic therapy is given to patients in conjunction with radiation therapy. There is very little understanding amongst our trainees and even PIs about how cancer therapy is delivered. Such a series would bring researchers into close contact with oncologists and provide a new appreciation and understanding of the challenges associated with delivering cancer care to our community."

A. External Stakeholder Interviews

External stakeholder interviews were held with the Ontario Institute of Cancer Research, Canadian Institute of Health Sciences, University Health Network, and the Terry Fox Research Institute to receive recommendations on how the CTCR can achieve its vision in the next five years. Below are the following questions that were asked to each external stakeholder.

Questions:

- As currently structured (as a virtual centre serving primarily in a networking, facilitating role) how might CTCR best interact with your organization in order to foster translational research connections?
- 2. Do you have suggestions as to how CTCR might better execute its function particularly in the areas identified in the CTCR review: enhancing trainee engagement; advocacy for research; advancing EDI?
- 3. It has been suggested that to advance cancer research in London, CTCR should aspire to evolve into Institute status. Institutes at Western generally have more structured governance and a larger resource base. What advice might you offer around this idea of evolving into Institute status?
- 4. Any other advice or thoughts?





Dr. Penuela & Ivan - OICR (Dr. Christine Williams & Dr. Laszlo Radvanyi) - 11/28/2023

Question 1

- Bring students and trainees together from both organizations
 - OICR has a "rising stars network"; a pan-Ontario network for students and trainees working in cancer research at the graduate and postdoctoral levels which facilitates events, workshops, and seminars, and provides awards and opportunities for trainees to collaborate.
 - Bring CTCR trainees and the rising stars network trainees together
 - Take in advice from students and trainees
 - Allows for succession to take place
 - Fosters EDI
- Reverse site visits, where CTCR comes to Toronto to see OICR and vice versa
 - Foster bi-directional meetings
 - Host open houses for people to see both sites, especially in specific cancer centres
 - Helps identify touch patients, which can help identify those that are conducting these touch points which can then bring those individuals to other centres
 - As well as open houses, conduct "MaRS"
 - More encounters and collisions between researchers and clinicians
 - One day visits aren't good enough to deeply identify the research areas and strengths that overlap to create ideas
 - Overlap is important to identify; what are the touch points and how do interests overlap? There are overlapping interests so why not strengthen them?
 - O Dedicate days to talk about strategy and to formulate a plan to improve both institutes
- Assembling a national/international advisory board
 - One that comes every year and taps into an international level to see what is happening around the world
- Funding for infrastructure is a big outcome when you're trying to bring people together
 - O Somehow put CTCR individuals and OICR under a building meant for both
- OICR is starting a strategic plan in August 2025
 - Create discussions between OICR and CTCR on how to develop this plan, as well as to start discussions regarding interaction between the centres
- A potential challenge with interacting is the geographical barrier, as there are a lot of different campuses and buildings spread out in Ontario
 - Perhaps put forth a "spoke-hub" distribution model

- Increase the importance and priority of EDI
 - Physically say that EDI is a high-priority





- Ensure that interview committees have good representation, actively seek different places for candidates when hiring
 - Create surveys to see what your make-up is (socio-economic diversity) and collect data (socio-demographic survey)
- Must be something that is constantly brought to the consciousness of people
 - Implement it in meetings, during hiring, bring forth to trainees
 - Maybe look at OICR's EDI strategy
 - Making sure that EDI is at the top of people's mind
- Host a "diversity in science day"
 - Establish the notion that EDI is important in research (bring forth different perspectives, patient engagement, etc.)
- o Indigenous community outreach to mold and synergize approaches
 - Making sure that other committees are thinking the same way in their EDI so you have one harmonized approach, and you don't silo and funnel people into different areas
- O Have a plan on how to deliver EDI
- London has an advantage over Toronto in that the cost of living is cheaper
 - Advertise London as the next go-to place for research; you can bring trainees over in London and attract the next people in line, especially with this cost of living and the quality of research that is being conducted
 - Use your advantage in that London attracts so many researchers, clinicians, and patients all around Ontario and in Canada
 - Recruit and bring people to "beef" up London's status, perhaps hire a world-class cancer researcher that can then help attract up and coming individuals
- Patient engagement must be part of the strategy for the CTCR
 - O OICR can share some of their tips
 - Must listen to patient needs, and vice versa perhaps a research day and forum to bring both sides together

- Must acquire advice and reports before anything
- In the upcoming virtual retreat (which we had already), this could be a great topic to bring up
- Nothing can be done without more money, and you need someone to hire that can run the process
 - O A world-class institute leader can help with this
 - Much flushing out to do as well
 - "Need to walk before you run"
 - CTCR needs more cohesiveness between people first, perhaps a unified governed structure





- Because its virtual, there is not sense of tying people together you need this first before becoming an institute
- Lots of negotiating and funding needs to be done
- Comparing to research in France
 - France has spread out with their institutes, but they have this "totem" building
 - Built an actual building that brought researchers physically together, under a physical roof
 - Brought local philanthropists and funders
 - You cannot change the fact that London has different people under different buildings (with regards to the different hospitals established)
 - But turn this into an advantage
 - Sunnybrook in Toronto is separated from the downtown core, but you need to look at them and ask how they have managed this, and how they turned it into an advantage to create an institute themselves
 - Make it worthwhile to be in that separate core; turn a lack of connection into an advantage by, perhaps, creating your own local culture

- CTCR has an opportunity to take advantage of the undergraduate population, who are young and can bring forth great initiative
 - O As well as the graduate population
 - o Implement more things such as CEL (Biochem 4955E Community Engaged Learning)

Dr. Bauman & Justine - Dr. Li) - 11/29/2023

- The CTCR needs to match the vision/mission with the resources they have available, or look into getting more funding.
 - CTCR has a great talent pool which can be used to our advantage.
 - The cost of entry can be increased as we need resources to bring people together.
 The community has to contribute; everyone wants CTCR to succeed but cannot happen unless everyone contributes.
 - There is opportunity to put CTCR on the map as a successful cancer centre the centre already has a strong talent pool; pool resources together (ex. "membership fee")
 - Ex. \$100k from each organization and show them how those resources will be deployed
 - Think bigger if there is a bold vision and can bring people along
 - Proposal: a one-time financial investment from Western (Schulich, Robarts, Lawson),
 LHSC, St. Joseph's





- We will need to come up with a sustainability plan for an entry-level investment
- Tell them what they can acquire from this investment and how it is good for them in the long-run
- o 6 different entities \$100-200k per year each
- "For half a million dollars a year this is what we can achieve together" define the vision, the programs, the short- and long-term plans
- If they want to do more and have a bolder vision, there needs to be more resources and we need key leaders to advocate for CTCR's goals
- University, hospitals, research centres they all have their own strategic plans; where would the CTCR's plans fit in their strategic plans?
 - If the university, medical school, and research institutes' plans align with having a strong translational cancer research program, it means that their plans align with the CTCR's this is how we can help them with their strategic plan
 - All in same team, row boat towards the same direction and this is how we're going to make them look good
 - Since these entities have high level strategic plans, we can fit anything in their strategic plans and show them that our vision aligns with theirs
- Other advocates, big donors, industries in the community look for potential fundraising opportunities
- Key is what the CTCR will do with that money for 2-3 years and in the long-run?
 - And make sure that this vision is properly shown and described to those who hold the resources

- Trainee engagement:
 - Place a trainee in governance to help shape CTCR
- Research advocacy:
 - O Use resources to buy time for clinicians; if there are particular emerging young scientists/clinicians who want to make an impact → can use some of the money to support them and provide more substantive funding for grants, early clinical trials that will hopefully be clinically significant
 - Some institutions have bridge-funding
 - O But can wash away a lot of financial resources
 - Matching funds for people who win external awards
 - It would be great to provide more substantive resources for people to pay attention and buy idea that having a virtual research centre is critically important for patients in London
- Advancing EDI





 Instead of creating a new plan, try to connect/link with existing resources from partnered institutes

Question 3 & 4

- There is opportunity to do more to support medical physicists and become an institute capitalize existing strengths and talents
 - Also a problem in some institutions need industry money to find and buy protected time for medical physics group
 - Sold a project (\$10 million deal) for patent and invested a portion of it to a pool of funding for protected time for medical physics and research institute
 - If CTCR thinks it's a priority, they should consider looking into getting support from industries (fundraisers, donors)

Dr. Bauman & Josh - UHN (Dr. Brad Wouters) - 11/27/2023

Question 1

- Create new strategy for facilitating interactions among membership/institutions
 - Create strategy for collaboration and team-based projects to bring clinicians, academics, professors, researchers, etc.
 - Get institutions working together
 - Could accomplish this by having city wide research director
 - Could potentially develop larger cancer strategy where every institution has a role in contributing to the overarching strategy
 - Utilize the strengths of each institution

- Graduates/Trainees
 - UHN has something called ORT which is programming run for graduates and post-doctoral fellows
 - Facilitates career development, opportunities, etc.
 - Post-doc have their own research day
 - The post-docs even organized it themselves
 - Created own organization, made own chairs, etc.
 - It's something they wanted to create and comes with tons of new ideas
 - Each institution has their own recruitment and integration of trainees
- EDI
- Have an EDI team responsible for creating and implementing specific initiatives
- Be realistic with yearly EDI expectations
 - Focus on top few priorities and make others more long-term goals





- Do an environmental scan to see what is being done across other institutions
 - Do not reinvent the wheel

Create collaborative centres

- Designed to bring faculty and interest together across institutions, teams are fragmented without this
- Allows them to ask bigger questions
- Designed to foster collaboration as opposed to competition
- Get the resources by pooling all funds together
 - O By making everyone's priority the same, promotes visibility/recognition and the money will come once you get the right people on board
- Need a unifying centre that does not threaten any other structures

Question 3 & 4

- The CTCR needs to have structured roles for its leadership
 - Potentially create some sort of advisory board to bring key leaders together
 - Need to create common goal for cancer, incentivize cohesion among leaders
 - Bring all of the institutions together
 - The UHN has a research director and cancer director that serve as institution wide leaders
- He recommends looking at the TASN, which is a CTCR-like organization that focuses on research across Toronto and is affiliated with UofT
- Everything must serve a central vision
 - One branch cannot follow just pillar 3 of the organizations outlined goals
 - All decisions need to be considering the overarching purpose
 - Leaders cannot be divergent on this idea
- Leadership team can build plan with yearly deliverables/goals
 - Engage faculty across institutions
 - All centres have focus on contributing to parts of the common deliverables as an organization
 - Have executives with existing activity and interest to direct clinical research teams
 - Need to make accountability clear, make the CTCR a priority
 - It can become too easy to ignore if a member chooses to do so





Dr. Allan & Unnati - Terry Fox Research Institute (Dr. Jim Woodgett) - 01/10/2024

Question 1

- CTCR is not participating in Marathon of Hope = this is a great opportunity to get involved + connect with the Terry Fox Foundation
 - O All it requires is an organizing principle who will put in the proposal, do the groundwork and make it happen
 - Requires translational clinical research but that is something the CTCR already has so really only missing the execution part.
 - Lawson is participating and representing themselves as a separate entity; they also have the most connections compared to other research organizations in London (not too late for CTCR to also take part)
- Should talk to Schulich Dean for funding and donor opportunities
 - Need to present the things CTCR would be able to do (e.g. tap into potential funding programs) if they were supported by Schulich.
- Also, should take advantage of clinical trial units in London as there are some grants (e.g. OICR) that really value clinical trial activity + offer opportunities.
 - CTCR doesn't lack the pieces required for all these opportunities → simply lacks the
 execution → goes back to needing an organizational principle who can make it all happen
 - o Should also do an inventory of the resources we have in the city → all the individual institutions are trying to fight for it themselves but if everyone comes together and collaborates then chances of receiving these opportunities increases immensely.
- Though the CTCR is dealing with changes in the relationship with hospitals + changes in leadership,
 it is important for the CTCR to set their agenda clearly.

- Advocacy for research:
- Genomics is changing a lot but ultimately too expensive to sequence everybody
 - Need to take into consideration the direction that cancer research, in terms of precision oncology and personalized medicine, is heading in the next 5-10 years
 - Need to align the CTCR's goals and resources towards those areas of research
 - O The CTCR should also take advantage of the unique intersectionality's London has to offer. This comes back to the idea of creating an inventory to understand all of the different resources we have and choosing the best combinations that will have the most to offer in the next 5 years of cancer research. You want to think of something that will lure researchers to London- want to make the CTCR an attraction.
- Need to fight for your agenda!
 - o should take advantage of the neuroscientists and imaging specialists who have access to big funding right now → find those whose projects are aligned with oncology and get them to fight for both





- o Should also take advantage of London's strengths e.g. metastasis → though it has been abandoned due to researchers focusing on the preventative side of things, people are still dying due to cancer hence still need to continue studying and finding ways of fighting metastasis. Since we have a good rep in that, we should use it to our advantage.
 - To get the universities, need to outline not only how we will become self-sustaining but also how this is an area of growth
- In terms of vision, need to be pragmatic:
 - Target all universities and hospitals but understand that they all have different sensitivities and interests
 - Say you put together your inventory and comparative analysis, then give them three scenarios: start off by displaying the status quo and showing the lack of support they are providing the CTCR for what comes out
 - Then give them a very reasonable but conditional scenario in which the CTCR will eventually become self-sustaining ensure that you will update them every year to prevent any shocks
 - End with showing them the big vision of the CTCR and show them what needs to be fulfilled to reach the CTCR's full potential (this will help your case as nobody reaches that point without external funding)

- The CTCR should dream big and increase its scope especially because it is an opportunity to integrate the CTCR and connect with not only other cancer research institutions in London but also with other regions in Canada
- Should not frame the need of converting by talking about how we are being held back by not being able to do ... Instead, we should frame it in another way by talking about the strengths we have and how we would benefit by getting e.g. institution status, more grant money, etc.
- Should also consider what the exact goals and position is of the CTCR if we were to upscale CTCR obviously has a focus on presenting research to the student population but there are many more opportunities. Example what is the CTCR's position with precision oncology? How will we incorporate it into different departments (e.g. pathology, bioinformatics)? How do you translate it and reduce it into various clinical settings, especially outside of the metropolitan and Toronto area?
 - O He believes that by laying this out, it will help the hospitals in London align better.

Question 4

Say we had a million dollars per year operating budget, many big team grants hire grant officer type of support systems. Do you think that is the kind of investment that would be the most resourceful?

• Somebody who helps write grants and acts as grant supervisor = somebody who challenges and maybe runs some kind of reviews to help new investigators





- and/or somebody who is good at scientific writing = someone who has a PhD and postdoc but has
 decided this career is not for them → somebody who enjoys writing and can pull together ideas
 from multiple PIs into a grant proposal
 - O Someone who can coordinate and work around grant proposals (do the work that many PIs and clinicians simply don't have time for)
- The resources are out there we just need to compete for them therefore need to have people
 whose entire jobs are dedicated to getting these opportunities to further the research and work
 done by members of the CTCR, enabling CTCR to move forward

B. Survey Results

A survey was sent out to CTCR members in October of 2023 to gauge their opinions on the current status of the CTCR.

Section 1: Assess Past CTCR Activities

Over the years CTCR has created and supported a number of activities and events. Please reflect and offer your assessment on the effectiveness and importance of these events. Please note that 'Strongly Agree=Value Added Activity by CTCR' vs 'Strongly Disagree=Activity by CTCR that did not add value.'

Strongly Disagree - 1 Disagree - 2 Neutral - 3 Agree - 4 Strongly agree -5

			Breakdown of each question by response						
Field	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Total Count		
Oncinsider quarterly newsletter	4	4 (23.53%)	8 (41.18%)	5 (29.41%)	1 (5.88%)	0	17		
CTCR Website	4	3 (17.65%)	10 (58.82%)	4 (23.53%)	0	0	17		
Special e-blasts regarding cancer research news items: grant opportunities, new faculty, local researcher accomplishments	4	5 (33.33%)	7 (46.67%)	3 (20%)	0	0	15		
Support and participation in the Department of Oncology Research and Education Day	5	11 (68.75%)	4 (25%)	1 (6.25%)	0	0	16		





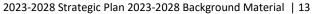
Facilitation of external stakeholder visits to London to meet with the research community (i.e. OICR, Atomic Energy Canada	4	7 (41.18%)	6 (35.29%)	2 (11.76%)	2 (5.88%)	0	17
Special CTCR sponsored events (i.e. Dr. Douglas Hanahan Hallmarks of Cancer Lecture)	4	7 (43.75%)	7 (43.75%)	2 (12.50%)	0	0	16
Yearly cancer researcher networking event	4	8 (47.06%)	6 (35.29%)	3 (17.65%)	0	0	17
Facilitation of the new research group development (ie. immuno- oncology research group, Cure4Glioma Group)	4	5 (29.41%)	9 (52.94%)	3 (17.65%)	0	0	17
Targeted cancer research workshops and retreats (ie. Cancer Centre of the Future, Cancer Imaging Workshop)	4	4 (23.53%)	9 (52.94%)	4 (23.53%)	0	0	17
Support for Trainee travel grants	4	9 (52.94%)	4 (23.53%)	4 (23.53%)	0	0	17

Section 2: Trainee Engagement in the CTCR

Formal CTCR membership is currently limited to independent researchers and faculty members. It does not include trainees (undergraduate students, graduate students, postdoctoral fellows, clinical residents/fellows etc). The main involvement of trainees in collective translational cancer research activities in London is through the annual Oncology Research & Education Day, and through the individual thematic groups within the Cancer Research Laboratory Program (CRLP) such as the Breast Cancer Canada Translational Research Unit (TBCRU), and the Translational Immuno-Oncology Research Group (TIORG), etc. Please reflect and offer your assessment on the value/importance of the following potential CTCR trainee engagement initiatives.

Disagree - 1 Somewhat Disagree - 2 Neutral - 3 Somewhat Agree - 4 Agree - 5

		Breakdown of each question by response					
Field	Average Score	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Total Counts
Extend CTCR memberships to include a trainee category	3	7 (41.18%)	4 (23.53%)	4 (23.53%)	0	2 (11.76%)	17



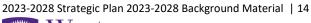




Include formal representation of trainees as part of the CTCR governance/manageme nt committee.	4	5 (29.41%)	5 (29.41%)	7 (41.18%)	0	0	17
Provide opportunities for trainee involvement in planning and/or leading CTCR initiatives.	4	7 (41.18%)	7 (41.18%)	3 (17.65%)	0	0	17
Develop and offer a CTCR-led trainee translational cancer research seminar series	4	6 (35.29%)	6 (35.29%)	4 (23.53%)	0 (0%)	1 (5.88%)	17
Develop and offer specialized educational opportunities on specific topic areas, i.e., molecular pathology, data science/AI, animal models of cancer etc.	4	7 (43.75%)	7 (43.75%)	2 (12.50%)	0	0	16
Develop more purposeful strategies to engage undergraduate students in cancer research and cancer focused graduate studies	4	8 (47.06%)	5 (29.41%)	3 (17.65%)	0	1 (5.88%)	17
Develop a Collaborative Graduate Program in Translational Cancer Research	4	4 (23.53%)	6 (35.29%)	5 (29.41%)	1 (5.88%)	1 (5.88%)	17
Pursue large team funding opportunities to support trainee scholarships/fellowships and innovative training and mentorship in translational cancer research	4	6 (35.29%)	10 (58.82%)	0	0	1 (5.88%)	17

Section 3: Equity, Diversity, Inclusion (EDI) and the CTCR

Section 3 EDI - Section 3: Equity, Diversity, Inclusion (EDI) and the CTCR There may be unexplored opportunities for the CTCR to have an external impact on broader EDI aspects in our community. Please reflect and offer your assessment on the value/importance of the following potential CTCR initiatives related to EDI.







Strongly Disagree - 1
Disagree - 2
Neutral - 3
Agree - 4
Strongly agree -5

			Break	down of each q	uestion by resp	onse	
Field	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Counts
The CTCR should develop an EDI action plan and/or specific goals to address EDI challenges in cancer research and care.	3	2 (11.76%)	5 (29.41%)	9 (52.94%)	1 (5.88%)	0	17
Greater patient engagement in research as patient partners.	4	6 (35.29%)	7 (41.18%)	3 (17.65%)	1 (5.88%)	0	17
Great patient engagement in research through clinical trials.	4	3 (17.65%)	6 (35.29%)	7 (41.18%)	0	0	17
Advocacy/support for addressing unmet cancer care needs of marginalized communities through strategic research.	4	3 (17.65%)	7 (41.18%)	7 (41.18%)	0	0	17
Establishing more active partnerships with already existing groups/organizations that serve marginalized communities.	4	3 (17.65%)	11 (64.71%)	3 (17.65%)	0	0	17
While very important, an external EDI action plan is beyond the current scope of the CTCR but should be considered in the future.	4	5 (29.41%)	5 (29.41%)	5 (29.41%)	2 (11.76%)	0	17

Section 4: Membership within the CTCR

There are no prescribed processes for membership within the University guidelines for Centres and Institutes. Currently, membership in the CTCR is extended to those individuals who self-identify as Cancer Researchers, have a Faculty Appointment at Western (or another University active collaboration with Western researchers) and who agree to have their contact information and research interests listed in the CTCR membership Directory. (Our Members - Centre for Translational Cancer Research - Western University (wo.ca)). Instructions for membership are included on the CTCR website and as part of regular communications.





Please reflect and provide your level of agreement with the following statements about CTCR membership.

Strongly Disagree - 1

Disagree - 2

Neutral - 3

Agree - 4

Strongly agree -5

		Breakdown of each question by response							
Field	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Counts		
The membership of the CTCR represents the diversity of cancer researchers across Western	4	6 (35.29%)	11 (64.71%)	0	0	0	17		
The CTCR website has accurate and up to date information about CTCR members	4	3 (17.65%)	11 (64.71%)	2 (11.76%)	1 (5.88%)	0	17		
Methods for identifying and inviting new members to the CTCR align with Western's EDI goals	4	3 (17.65%)	9 (52.94%)	5 (29.41%)	0	0	17		
Being a member of the CTCR has been a positive experience and added value to my research activities	4	4 (23.53%)	10 (58.82%)	3 (17.65%)	0	0	17		

Section 5: CTCR Governance

Did you find this explanation useful?

Strongly Disagree - 1

Disagree - 2

Neutral - 3

Agree - 4

Strongly agree -5

		Breakdown of each question by response					
Field	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Counts
The CTCR is appropriately aligned with the University's governance guidelines for Centres	4	5 (29.41%)	11 (64.71%)	1 (5.88%)	0	0	17

2023-2028 Strategic Plan 2023-2028 Background Material | 16





Leadership renewal should be a strategic priority for this cycle of the CTCR (2023-2028)	4	4 (23.53%)	9 (52.94%)	3 (17.65%)	1 (5.88%)	0	17
The current model for selection of members of the CTCR management committee are in alignment with the University's Guidelines.	4	5 (29.41%)	9 (52.94%)	2 (11.76%)	1 (5.88%)	0	17
The current model for selection of members of the CTCR governance committee are in alignment with the University's principles of Equity, Diversity, and Inclusion.	4	3 (17.65%)	9 (52.94%)	4 (23.53%)	1 (5.88%)	0	17

Section 6: CTCR Leadership & Advocacy

The CTCR has a very large membership that is more in line with what might be expected of a Western Institute versus a Western Centre.

According to Western Guidelines "Institutes are entities that may have significant financial and other implications for the University that must be sustained by the Institute itself, or with a specific negotiated relationship with the University. Institutes will often be responsible for the operation and oversight of core research infrastructure and facilities."

Combined with the activities and the accomplishments of the CTCR since its inception in 2010, two of the recommendations that arose from the Centre review process was that: (a) Pursuit of the future Institute status might be a discussion point during a strategic planning exercise; and (b) the CTCR should use its leadership role to lobby for all initiatives that would act as drivers of translational cancer research in London.

Strongly Disagree - 1
Disagree - 2
Neutral - 3
Agree - 4
Strongly agree - 5

			Brea	kdown of each o	question by resp	onse	
Field	Average Score	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Counts
The CTCR should consider pursuing Western Institute status as a key priority for 2023-2028	4	6 (35.29%)	5 (29.41%)	4 (23.53%)	2 (11.76%)	0	17





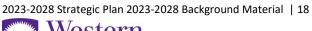
Regardless of Centre versus Institute status, the CTCR should play a greater leadership and advocacy role aimed at advance the collective operations and impact of translational cancer research in London	4	9 (52.94%)	4 (23.53%)	4 (23.53%)	0	0	17
For the following 5 questions, in yo	our opinion, wh	at specific areas	/activities wou	ld benefit from	enhanced CTCR	eadership and/o	or advocacy?
Advocacy and work with institutional partners (Hospitals, Schulich, Western) to formally recognize Cancer as a research priority within these organizations	4	9 (52.94%)	5 (29.41%)	3 (17.65%)	0	0	17
Advocate and work with institutional partners (Hospitals, Schulich, Western) to recruit and support a citywide Director of Cancer Research	4	11 (64.71%)	3 (17.65%)	3 (17.65%)	0	0	17
Advocate and work with institutional Development partners (Hospitals, Schulich, Western) to enhance fundraising to support cancer research citywide	4	10 (58.82%)	4 (23.53%)	3 (17.65%)	0	0	17
Seek out enhanced CTCR funding to support additional CTCR core staff to support researchers in other areas such as research group development, grant development etc.	4	8 (47.06%)	4 (23.53%)	4 (23.53%)	1 (5.88%)	0	17
Advocate and work with institutional partners (Hospitals, Schulich, Western) to remove operational bottlenecks for research (i.e. streamline contracts, REB, data and material transfer agreements, patient consenting)	5	12 (70.59%)	3 (17.65%)	2 (11.76%)	0	0	17

Comments

Actionable

Section 1

- 1. Funding opportunities new. This can be done biweekly. Schulich and Western have not done this well; 2. Support for trainee travel grants; 3. Support for building cancer related data sets or databases
- Seminars by CTCR members showcasing translational research; older seminars combining a basic scientist and a clinician were greatly rewarding-worth reviving; some LRCP catalyst grants







reserved for translational research -- Creation of a high-quality tumor bank like the breast tumor bank maintained by Muriel

• It would be of interest to our cancer research community to develop seminar series to educate researchers about how cancer patients are treated. Providing an understanding of how systemic therapy is given to patients in conjunction with radiation therapy. There is very little understanding amongst our trainees and even PIs about how cancer therapy is delivered. Such a series would bring researchers into close contact with oncologists and provide a new appreciation and understanding of the challenges associated with delivering cancer care to our community.

Section 2

- An independent graduate program in oncology (like U. Alberta) would be far better.
- Involve trainee representative in CTCR administration

Section 3

• EDI regulations/guidelines have been extensively generated and adopted at each local hospital and at UWO. There is no need for CTCR to reinvent the wheel. We should simply adopt the UWO EDID guidelines.

Section 4

- identify new candidates for membership and point out the value of joining
- Open CTCR Annual meetings

Section 5

[N/A]

Section 6

- We may need to form some core research teams with interdisciplinary backgrounds in different CIHR pillars
- Start a CTCR career Scientist Award amongst Lawson Awards or to be given on the Annual Cancer Research and Education Day
- Western needs a "Cancer Institute". This should not be a research only structure but should be a clinical care + research + education + philanthropy structure. Quebec City has this and a trip there by leaders would be enlightening. It should be in a modern and well-equipped building. It should have rapid imaging access (CT scans for cancer take up to 4 months now!!!, unacceptable) and rapid pathology. It should house all the people that live and breathe cancer. It should be a place for trials, biospecimens, and research. It should be spacious because cancer is growing a lot. It should have outpatient procedure rooms for the numerous ambulatory procedures' cancer patients require. It should have radiation. It should have a large treatment center for systemic and intracavitary therapies. It should be patient-focused, a one-stop shop for all cancer stuff. It





should have a modern EMR (not Powerchart). It should have universal consent for research, tumor biospecimens, and germline genetics.

Open Question

- We need a citywide director of cancer research with an undeniable reputation of excellence and
 a budget to actually do something significant. This person will have to sacrifice a lot for the
 betterment of the rest of the community, and finding someone qualified and with an altruistic
 nature is going to be really hard. They will only come if significant resources are available, as they
 are sacrificing their own career to grow something here for all of us.
- CTCR visibility at the Schulich or the university is not currently high. Rather than trying to raise the status to the institute level, all efforts should be invested to raise the quality and visibility of the CTCR
- Oncology at Western is too spread out and not coordinated. Delays, particularly imaging and OR access, are accepted as normal. A student that just rotated with me told me that OR access at Western is worse than anywhere else she's been. We need better coordinated care.

General Comments

Section 1

- Most of these activities are highly beneficial and we are very lucky to have access to them. Oncology Research and Education Day is really the highlight of the year and a truly fantastic event.
- Time is a major issue for clinician scientists presently. Increasingly, the clinical burden is making attendance of meetings and even reading email difficult.

Section 2

- In my view, providing funding support (scholarship and travel grant) is the most important thing.
- I think oncology needs its own graduate program, perhaps interdisciplinary with immunology, genetics, and cell biology input

Section 3

- One EDI plan should be established at the level of the hospital not each program
- EDI has taken on a life of its own and has become an all-consuming goal in of itself. This is really exemplified by the addition of extra letters over time to EDID and even longer variants. It's not going away, but it shouldn't be center stage.

Section 4

- I don't think this is one person's job to tag new people who might be qualified.
- The CTCR already does a great job at recruiting members. Anyone involved in cancer research in London who is not a member of CTCR is out of touch.





Section 5

- Glenn is doing an outstanding job. Hate to see him step down.
- EDI should be a priority in CTCR activities

Section 6

- Administrative support, especially for clinical research, would be a huge efficiency benefit (ie. administrative aspects of REBs, grants, etc.)
- The university clearly wants to see the CTCR become more self-sustaining, which is no surprise as
 they want to save money rather than promote research, education, and healthcare. I am so tired
 of Western false austerity programs and continued hiring of ever more highly paid administrators
 that just create more paperwork and regulations to strangle our ability to get anything done
 without maximum effort.

Open Question [N/A]

C. Virtual Retreat

A virtual planning committee retreat was held on the 17th of January 2024. This event aimed to measure the Centre's capabilities as an organization by brainstorming impactful strategies for various hypothetical scenarios. Below are the following questions that were asked to retreat attendees.

Exercise 1: CTCR will be receiving \$1M annually for 3 years. Imagine you are the Director of the CTCR:

- A. What are the key initiatives you would fund with this budget?
- B. How would these initiatives build cohesion and support EDI among the cancer research community?
- C. How would you measure the impact/success of these initiatives?
- D. Who are the key partners you would engage around the first three years and form a sustainability perspective after three years?
- E. What other priorities would you have as director of CTCR?

Group 1: Dr. Allan, Dr. Petrik, Dr. Thiessen, Dr. Dekaban, Dr. Wong, Dr. Dick

Overall goals

- O To improve the lives of cancer patients and their families through innovative, clinically impactful research across the translational cancer research continuum
- Through these research activities and priorities, to raise the profile of the CTCR (and/or the profile of the London/SWO cancer research community writ large) so that we are known as one of the best cancer research groups in Canada and international





Key initiatives

- o Increase regular opportunities/mechanisms for greater collaboration between basic scientists, clinicians, and other multidisciplinary researchers, not just within the specific teams that are already established but more widely across the CTCR Membership
 - Return to annual or semi-annual networking events focused specifically on making these connections
 - Seminar series, R&E Day etc.
 - Role of PhD-level grant/research facilitators to better position ourselves to be successful with external funding opportunities. This is especially important in the context of facilitating big team grant applications (CFI, TFRI, NFRF etc.) but also maybe helping with "match-making" between basic scientists and clinicians for individual operating grants from CIHR, CCS, CRS etc.
 - There was some disagreement between group members about the value of spending \$\$\$ on this
 - Some people felt it was a waste of money because the researchers should take the lead themselves.
 - Others who had experienced the critical role of grant facilitator support in funding success (especially for big team grants) felt that it would be \$\$\$ very well-spent.
- Re-investment in trainee scholarship/fellowship support and training with a focus on translational research
 - Trainees are often the catalyst for collaboration between basic scientists and clinicians for translational research projects
 - Trainees also often bring the next level of innovation fresh ideas, emerging cutting-edge technologies and research approaches etc.
 - Should include graduate students, post-docs, clinical fellows.
 - Undergraduate summer scholarships to build the next generation of cancer researchers earlier?
- Creation of big annual fundraising event (s) (i.e., gala dinner, run for cancer etc.) to support CTCR/cancer research in London/SWO.
 - There have been examples of this to support sub-programs of cancer research, i.e., Baines, Breast, Ovarian, Prostate but this would be for the whole program
 - Would need to involve true collaboration between all the Foundations linked to cancer research LHSF, SJHF, Western
 - Need a transformative theme/goal to engage and excite donors for example the Innovation/Knowledge Translation hub idea
- Creation of an Innovation/Knowledge Translation Hub to accelerate the movement of basic and clinical research into clinical impact for patients
 - David Hill's suggestion based on an exciting initiative recently launched by Nova Scotia Health (DH could provide more details as needed)





- Partnership between university and hospital researchers/institutions, government, industry, venture capitalists etc. Potential partners for CTCR World Discoveries, Western Innovation Hub, Ivey, OICR, local businesses and investors, local and provincial government etc.
- Could also be part of a revitalized cancer research training program

Measuring impact/success

- Increased number of collaborations between basic scientists and clinicians that result in external funding, publications, citations and research findings that translate to patient impact
- o Increased success with large team grants focused on translational cancer research
- Enhanced national and international reputation/recognition/profile of CTCR/Cancer Research in London/SWO as a key player in the Canadian and international cancer research ecosystem
- o Enhanced recruitment and success of trainees as the next generation of exceptional cancer researchers and leaders
- Increased philanthropic support for CTCR/Cancer Research in London/SWO
- Increased new partnerships specifically aimed at innovation and knowledge translation
- Tangible evidence of increased translation of our research to clinical impact

Key partners

- The whole CTCR community of researchers
- o Institutional partners: LHSC, SJHC, Western
- o Philanthropic fundraising partners: LHSF, SJHF, Western Development/Advancement
- External cancer research partners: OICR, TFRI, CCS, CRS, CIHR, other hospital-based cancer research institutes
- Patient partners
- o Innovation/KT partners: World Discoveries, Western Innovation Hub, Ivey, OICR, local businesses and investors, local and provincial government etc.

• Other priorities for Director of CTCR

- O Discussed where CTCR sits in the cancer research ecosystem in London and what authority/agency it currently has versus needs to have in order to enact real changes through initiatives discussed at this retreat.
- O CTCR is (or needs to be):
 - The glue that brings together disciplines, organizations and partners within the cancer research community in London/SWO; sitting at the key leadership/decision-making tables and being recognized as such.





- The Link/hub/core that binds us together within our local community but also (importantly) the link/hub/core that is identified as the key entity for cancer research by external stakeholders and partners
- The think tank that is driving the strategic mission of cancer research in London/SWO
- O A very important opportunity is available to us right now, with the many city-wide changes in research structure and leadership, as well as a clear signal from LHSC that Cancer will be a flagship research program. The CTCR is in a unique position to be declarative about our goals, and as Janet suggested at the retreat "Seize the mantle"!

• Build Cohesion and support of EDI

- Exciting new initiatives should build excitement to engage around a refreshed and shared vision
- Increased collaboration and trainee engagement will naturally build cohesion
- o It will be really important for collaboration events/initiatives to be very inclusive.
 - Discussed how some members are already deeply engaged in collaborations within CTCR but others feel more on the periphery; wanting to get involved in new collaborations but not knowing how.
 - Need to eliminate the feeling of "in the club" versus "not in the club" (sort of like OICR but not as bad)
- O As reflected by the broader discussion at the retreat, the group felt that there would be a lot of opportunity for EDI within a refreshed cancer research training program

Group 2: Dr. Penuela, Dr. Shepherd, Dr. Mymryk, Dr. Welch, Dr. Ronald, Ivan

Part A

- Talks
 - o Bringing back events from the beginning of the CTCR (those dropped off due to covid)
 - But, improve them with a new spin
 - Hosting events throughout the year, not just an education day or symposium
 - 3-4 times a year
 - Maybe talks throughout the year that build something at the end of the year (an award, competition)
 - Each unit under the CRLP can invite their own people
 - O Hosting more talks like Doug Hanahan
 - Bring in international and quality speakers
 - Could be a half-day thing that brings people in across the whole city
 - Could have a key speaker in the beginning of the session, then allow for trainees to present their own ideas and findings afterwards
 - o Allow for colleagues to see each other and to foster in person communication





- Bring people in that are in charge of other cancer research institutes, and allow them to elaborate on how they have a community and what they do to inspire clinicians, scientists, programs, etc.
 - Bi-directional site visits and allow for people to understand what each centre/institute is doing
 - However, must find a way around the idea that people don't seem to have an appetite for sharing practices / tips
 - Talks don't have to be about research, it can be about the person's centre and how they have acquired the fundraising
- O Avoid virtual engagement, talks must be in person
- Fundraising
 - Involve and establish more awards
 - O Bring in fundraising and industry partners that can help
 - o If there are 7 groups in the CRLP, you can give each group ~100k a year, and have ~300k left over for more CTCR-wide applications
 - Units themselves need the support
 - Make the units establish a strategy for what they will do with their own money
 - Perhaps them running their own symposiums / research days
- Admin support
 - O Need more administrative support in the CTCR need more people like Kimberly
 - Have people whose job is to connect others and to facilitate discussion; it is hard to bring disciplines together and you need someone who can foster this
 - Bring community members together, and have someone who can do this and link it to fundraising
- Unique/mini CaRTT program
- Sustained IDI
- Support trainee programs

Part B

- Re-establishing trainee programs that has bursaries and scholarships will support EDI
 - O Support trainees through these scholarships, travel awards, and programs to allow them to build their skills
 - o If you are bringing in trainees, you will automatically help with EDI
- Making sure that people who organize talks and symposiums represent different groups
 - Ways to encapsulate this when hiring guest speakers or when organizing different events
 - Having trainees present to talk afterwards
- Having more admin support already makes things more cohesive, and cohesion should be put into every initiative
 - Award for merit for people who build cohesion





- You cannot force fit EDI into everything; sure, a trainee program and supporting them will take in EDI easily and it will be more receptive, however, fitting EDI into more established work/workers might not fit
 - Recognizing that certain initiatives will be more amenable for EDI
- You need a buy-in from members to build cohesion, that people will recognize and introduce themselves as a CTCR member rather than a clinical oncologist
 - O People must see themselves as part of a group rather than something separate
 - O However, in order to build this, people must have the ability to benefit and acquire perks from buying into the CTCR
 - Right now, there is no strong benefit
 - Perhaps grants?

Part C

- A metric on how the funds are being used
- Talks
 - Attendance by trainees and those across the city
 - Leveraging from hospitals and industry partners
 - Post-meeting feedbacks
- Unique/mini CaRTT program
 - O The size of the labs established and the number of trainees involved
 - Number of undergraduate students involved
 - Track where trainees are going afterwards
 - Scholarships, how they're developing their careers, where they're going, their publications
- Fundraising
 - If more money is being brought in
 - O Whether the units in the CRLP are achieving grants and what their publications are
 - o If the units in the CRLP are delivering on the things that they said they would deliver when acquiring the money in the first place
- Supporting trainee programs
 - Tracking career progression and their awards
 - Creating an exit interview / survey
 - Acquire information on where their next step is as well as feedback for the CTCR
 - o Giving membership to trainees because they are much more willing to participate
 - Helps with things on CV and resume
 - These trainees will come up with great ideas

Part D





- Other institutes in Ontario and Canada
 - o OICR
 - Canadian Cancer Society
- These groups have already mentioned that they want to be part of the process

Part E

- The director's job should be to engage with other centres and see how they do things to help our own centre
- When hiring a director, the person elected must have connections and establishments, and to make sure that they know people and they know how to move the needle
 - o Can look for donations
 - Have the ability to bring cohesion
 - o The CTCR director and/or the leadership committee should have the budget to go visit other cancer centres and learn how they are successful

Exercise 2: Revitalizing the Modern day "CaRTT" program. Imagine you are the Director of the CTCR:

- A. What would be the key goals of a new/revitalized cancer research trainee program?
- B. What components from the original CaRTT program would you retain, and/or what new components would you add?
- C. What resources and partnerships would be needed to ensure the success of the program?
- D. What strategies would need to be in place to ensure that the new program is equitable, diverse and inclusive?
- E. Based on your experience, what other suggestions/ideas/feedback might you lie to add to the discussion?

Group 1: Dr. Scholl, Dr. Hu, Dr. Porter, Josh, Unnati,

Part A

- The key goals would be
 - O Focusing on supporting the student experience and skill development
 - Accomplish this through workshops
 - Monthly, quarterly
 - For example, workshops on AI, how it can be useful
 - Particularly those that don't dabble
 - Varying subjects
 - o Increase stipends available for recruitment attention
 - Focus on increasing funding
 - Specifically, for those students that are the program





- Monthly based seminars
- O Develop fair criteria to determine who gets spots in this new program
- Need to create an environment where students can be exposed to a variety of multidisciplinary aspects
 - Allows trainees to expand knowledge base to branch out

Part B

- Continue the workshops and seminars that the original CaRTT program had
- Increasing available stipends similar to old CaRTT formula
- Develop more creative ways with outreach programs
- Reinforce the focus on the multi-disciplinary experience
 - For diverse experiences
 - Advocacy
 - Big area in research these days, need people to advocate which is an entire career
 - If you go to these workshops
 - They have patients who are in the midst of or have received treatment for cancer
 - Having students exposed to these people and how they share their experience and can be quite motivating
 - Patient engagement component
 - One of those things that is great for both groups
 - Benefits students and the patients wanting to host lots of guest lectures
- Have lots of guest lectures
- What the research is, what do they do
- Have content over this, being exposed to different types of research that was occurring was very enjoyable
- So many different aspects, we don't necessarily see
- Being exposed outside the lab for what else is happening
- Exposure to different jobs and careers that are out there
- Find jobs not in the mainstream that appeal to students
- Expose students to non-stereotypical routes
- Could have guest speakers from industry to show this side of science
- Should also create workshops on more practical things
 - Such as: how do you write a grant
 - Ask students to help in these processes
 - Reviewing feedback
 - Teach students how to deal with the stress and difficulty of these important processes





Part C

- Should create partnerships with journals or industry
 - O Give informational session a few times a year to learn of other careers
 - Create opportunities for internships or placements
 - Connect students to different organizations
 - O Connect students to different areas of research through these institutional partners

National or International collaboration

Find opportunities outside of London

Would be beneficial for CTCR, to not only have students thrive in other locations but also have some sort of exchange

- Look for a shared program
- Discussion with different institutions to provide international students a place to go

Potentially advocate for some sort of facility

- To facilitate internships into biotech field
- To facilitate opportunities for short term research
- Companies would benefit from training and develop students
 - Learn new technology
- This could be a very valuable thing to try and get going
- This could also bring in novel funding through sponsorships and partnerships

Need to identify partnership and see whether or not they could secure funds

- Could be non-profit organizations
 - o Plenty of opportunity out there?
- This could also be from industry

<u>Part D</u>

- It can be very limiting for diverse students to get into research
 - Based on the traditional way of getting in
 - Application process, committee for standard criteria
 - Are there any other directions to think about for this to improve diversity in admission?
 - Could there be something available to all students with regards to training experience
 - Could there be digital resources to add to involve all kinds of students
- Strategies
 - o Going to need organizing committee to oversee mandate of this training program
 - O Gives actual structure to the goals, how will students be supported, funding
 - Want to collect metrics with regards to student support, types of students being support, how are they being supported





- O Getting regular student feedback and from PIs to ensure that the program fulfils
- Can we track students after program?
 - O Are there things that would help with their transition?
 - O Sometimes we have students that move into industry
 - Come back and share experiences
 - O What did they find interesting, what did they not

Also important that we set up goals but make sure that the program is actually having an impact

- Pulse check from students and PIs
- How do they feel, trainee experience?
- Elevate skill set of the students, have more funding coming in and then collect metrics overtime to make sure that the program is having a real impact on the trainees

We also need to make sure that we are not only exposed to EDI, but actually have diversity in the program

- Need an inclusive environment because this is where science thrives
- Need to have direct training and hearing from others experiences
- Have surveys to gauge opinions on the program

Part E

- Naturally we have a mentoring environment
 - o Formalise so students have training on mentorship and feel like they are a part of it
- Need to be able to give feedback and train people on how to give feedback
 - All these types of things
 - To ensure a trainee program would have the best impact for students

Group 2: Dr. Len Luyt

Part A

- Increased trainee involvement in translational cancer research
- Increased learning opportunities for technology transfer
- Fund scholarships for trainees
- Provide a sense of belonging for trainees in the cancer research community (including mentors and trainees)

<u>Part B</u>

- Trainee scholarships
- Business course on commercialization and technology transfer, linked to Ivey or seminar series on this topic (less expensive)
- importance of Research & Education Oncology Day, but not needed to be funded by a training program
- in-person interaction for trainees and mentors, city-wide





- educational venues for exposure to clinical translation; clinician/fellows' involvement; patient interaction for trainees to hear their perspective "Care Path"
- online resource, a library of videos, for trainees; content vetted by CTCR experts

Part C

- funding sources, maybe CIHR in the future?
- partnership with Ivey for course on technology transfer
- requires close partnership for city-wide director and the CTCR
- clinical ambassadors, ways to interact with clinicians
- a collaborative program through Western would be one way to bring in students from many departments; allows for scholarships or travel awards etc under this umbrella; less onerous than creating a new grad program
- OICR? An untapped partner and interested in forming alliances outside of Toronto.

Part D

- Include a high school component as a good approach for increasing diversity
- Barriers for access to labs, perhaps CTCR could assist (eg current ban on volunteers at LHSC)

Part E

[N/A]

Member comments (email)

Those who have missed the retreat but have decided to contact the CTCR afterwards to share their opinions:

- Have on-site state-of-the-art omics equipment and microscope suites
 - We need to be realistic about the transient nature of principal investigator (PI) grant funding and our limited time (mostly spent writing grant applications), which is unlikely to change anytime soon
 - Students are also transient
 - As such, hiring an expert technician with expertise in omics interpretation/graphing/statistics is essential to run the facilities
- Omics equipment include:
 - o scRNAseq
 - Requires FACS and various data pipelines
 - o sc proteomics family (MIBI)
 - Spatial transcriptomics capability





- Requires state-of-the-art confocal microscope, frozen sectioning capability and builds upon the histology core currently run by Carl and Alison Allan, but requires RNAse-free handling tissue sections
- These facilities are available through Robarts, but there is the travel issue and also the amount of time that the technicians in this facility have, which is limited per project
 - Availability for techs is limiting for the day-to-day help in learning and troubleshooting
 - o 10X genomics company tech access time is also limited
- Should go after large equipment and facility grants from the government and industry that include salaries for techs to run the equipment and experts in computer programs/statistics to help with the interpretation of large data
- The CTCR is important and has the ability to be a centre focus at the university, especially if it
 focused on helping researchers build strong interdisciplinary teams and access technologies (and
 expertise to run those technologies), bio samples, and other components needed to do modern
 cancer research
 - O Building strong and functional teams that continue to function over time is extremely difficulty but when it happens they have tons of success

