BioCanRx
Canada's Immunotherapy Network
Le réseau canadien d'immunothérapie

CSEI Program

Understanding the Economic Value of Decentralized CAR-T Therapies for Adults with Relapsed/Refractory Acute Lymphoblastic Leukemia

Project duration: 2025-4-1 to 2027-10-31

Targeted cancer type:

Blood cancers

This project team will conduct a cost-benefit analysis of point-of-care (POC) CAR T cell therapy manufactutring in a Canadian context.

Project value:

$199,978

BioCanRx Contribution:
$199,978

Biotherapeutic:
Adoptive cell therapy

Key Investigators:

Project lead:

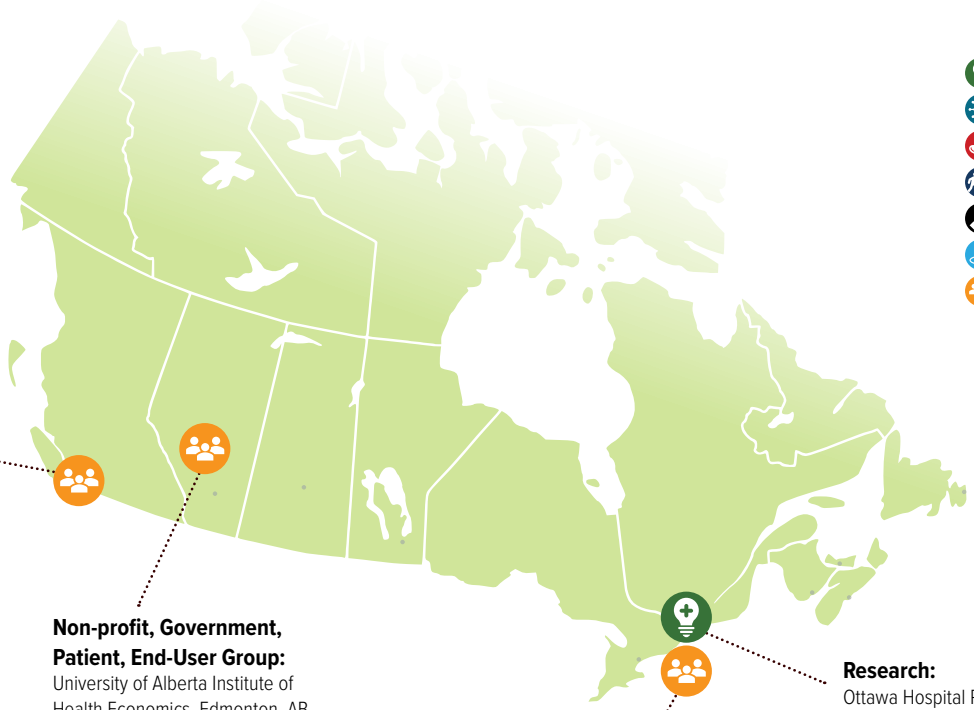
Dr. Kednapa Thavorn

The Ottawa Hospital Research Institute | L'Hôpital d'Ottawa Institut de recherche

About the project:

CAR-T cell therapy is a groundbreaking cancer treatment that has given new hope to patients with certain blood cancers, such as acute lymphoblastic leukemia (ALL) and diffuse large B-cell lymphoma. It offers a chance for long-term survival, especially for those who have not responded to traditional treatments. However, CAR-T therapy is difficult to produce, very expensive, and currently available only at a few specialized centers in Canada. This makes it hard for many patients to access the treatment.

The team's study will assess the costs and benefits of producing CAR-T therapy closer to where patients receive care—an approach known as point-of-care (POC) manufacturing—compared to producing it only at specialized centers (commercial CAR-T therapy) and other treatment options. First, the team will estimate the total costs of POC-manufactured CAR-T therapy and identify key cost drivers. Next, they will use a mathematical model to compare the costs and health outcomes of different CAR-T manufacturing approaches to determine which provides the best value for patients and the healthcare system. Finally, they will conduct a budget impact analysis to estimate the financial effects of expanding POC manufacturing in Canada, helping policymakers understand its affordability and potential impact on healthcare budgets.



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Key Deliverables

1. Costing analysis for the decentralized CAR-T manufacturing model
2. Economic evaluation including cost-utility analysis, value of information and budget impact analyses, delivering critical insights into the cost-effectiveness and sustainability of decentralized CAR-T manufacturing in Canada

The power to kill cancer lies within us. Let's tell our bodies how.

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