BioCanRx
Canada's Immunotherapy Network
Le réseau canadien d'immunothérapie
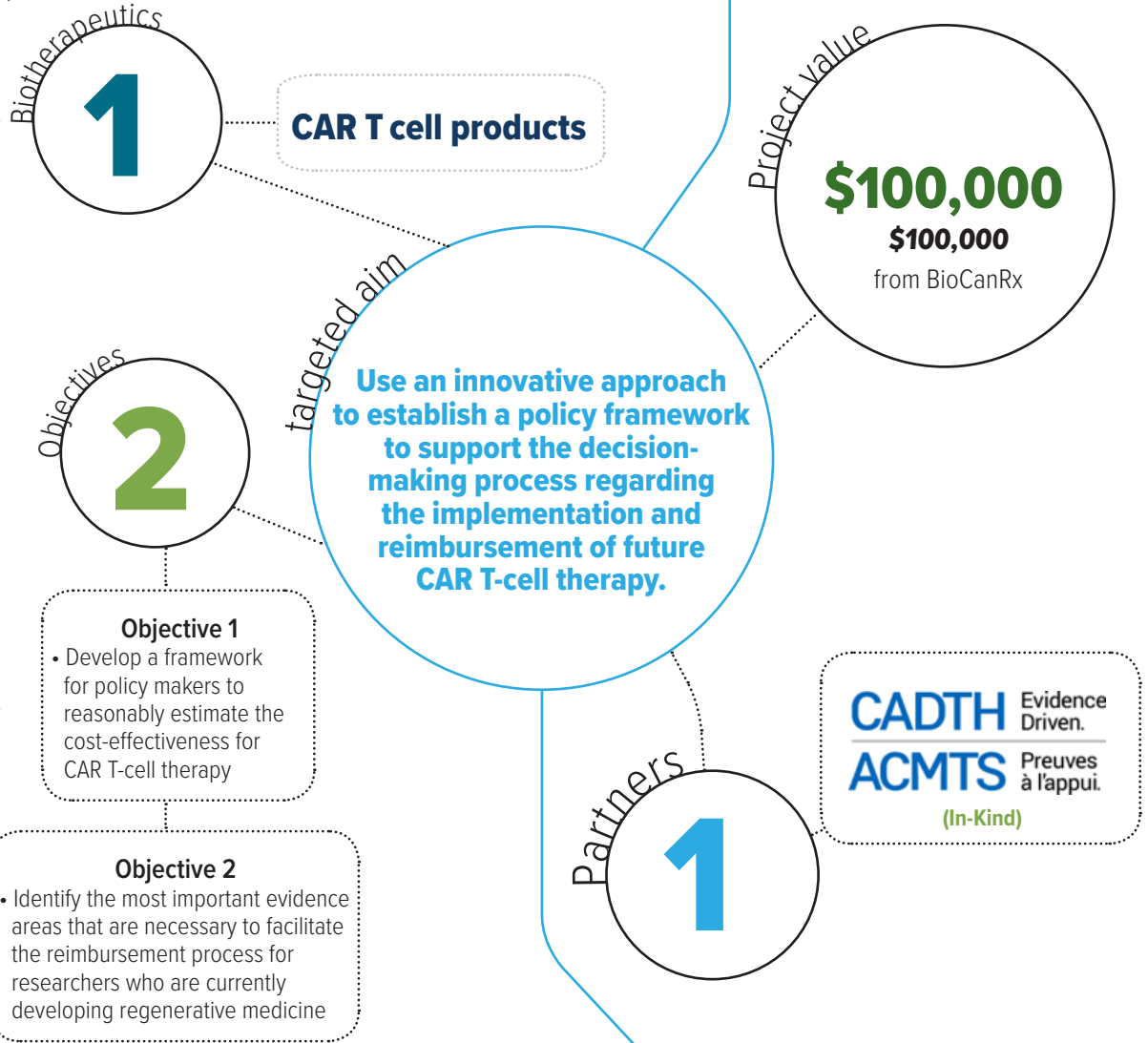
Clinical, Social and Economic Impact Program

Developing System-level Policy Model for regenerative medicine and cell therapy in Oncology

April 23rd, 2018 to March 21, 2020

Highlights

- Findings will address knowledge gaps in policy makers in the context of reimbursement of CAR T-cell therapy

- Provide cancer researchers with necessary support to make informed economic decisions regarding the development of future CAR T-cell therapy

- Research will contribute important insights to both clinical researchers and policy makers to improve oncology care in the Canadian health care system

Biotherapeutics

1

CAR T cell products

Project value

$100,000

$100,000

from BioCanRx

targeted aim

Use an innovative approach to establish a policy framework to support the decision-making process regarding the implementation and reimbursement of future CAR T-cell therapy.

Objectives

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Objective 1
- Develop a framework for policy makers to reasonably estimate the cost-effectiveness for CAR T-cell therapy

Objective 2
- Identify the most important evidence areas that are necessary to facilitate the reimbursement process for researchers who are currently developing regenerative medicine

Partners

1

CADTH Evidence Driven.
ACMTS Preuves à l'appui.

(In-Kind)

About the project

Chimeric antigen receptor T cells, or CAR T cells, have transformed oncology treatment, offering the potential to cure certain cancers. Although shown to be effective in selected populations, the high cost of CAR T-cell therapy, along with substantial usage of health care resources (highly personalized therapy and significant monitoring required) may potentially restrict patient access to this type of treatment in the future. A framework must be established to estimate the cost-effectiveness of this therapy compared to the standard of care by taking into account the effectiveness, safety, affordability and resource constraints in the Canadian healthcare system.

Dr. Wong's team will use an innovative approach to establish a platform to support the decision- making process regarding reimbursement and implementation of CAR T-cell therapy in the future. Results of this research will provide an evidence-based evaluation of this therapy and its place in the health system, and serve as a foundation for clinical trial researchers and policy makers for improving oncology care.

Key investigators

Project lead:
Dr. William WL **Wong**

Key Investigators:
Dr. Kelvin KW **Chan**

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Sub-Projects

Sub-Project 1: Environmental Scan
- Purpose: To provide an overview of the capacity of our health care system to support the implementation of CAR T-cell therapy and to address challenges and barriers associated with implementation of regenerative medicines and the feasibility of implementation.

Sub-Project 2: Mathematical Policy Model
- Purpose: To project and predict 1) the system-level-cost-effectiveness and 2) the affordability of different CAR T-cell therapy strategies from the healthcare payer perspective.

Sub-Project 3: EVPPI Analysis
- Purpose: To identify the most important evidence areas essential to reimbursement decision.

Key Outputs

- After approval, recruitment and interviews with stakeholders will begin and last until December 2018

- Data analysis completed within this timeframe

- Phase 1 and Phase 2 occur concurrently
- Phase 1: Requires ethics board approval (should be obtained within first 2-3 months)
- Implementation of model
- Requires 9-12 months
- After implementation, model is calibrated and validated
- Data collection

- Completion date of phase
- Last phase of the project will begin once the model is finalized, and is expected to last for 3 months

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

BioCanRx
Biotherapeutics for Cancer Treatment
Biothérapies pour le traitement du cancer