

## Catalyst Program

### Optimizing a personalized infected cell vaccine (ICV) for peritoneal carcinomatosis

Oct. 14, 2016 to Sept. 30, 2019

#### Highlights

- Preclinical models of colon cancer peritoneal carcinomatosis show that an ICV using the oncolytic virus Maraba expressing the immune stimulating protein, interleukin 12 (IL-12), can eradicate multiple large tumours when delivered into the peritoneal cavity
- Evaluates the potentiating effects of IL18 and a TLR2/4 adjuvant on efficacy of an ICVs using an IL-12 expressing Maraba virus, the project's lead clinical candidate
- Brings together a combination of clinical, methodological, scientific and commercial development expertise

**Biotherapeutics**  
Maraba (MG1) expressing the immune stimulating protein + Interleukin 12 (IL-12)

### Abdominal cancers (Peritoneal carcinomatosis)

This project aims to refine an infected cell vaccine (ICV) prior to manufacturing and clinical testing for the eventual treatment of peritoneal carcinomatosis.

Project value  
**\$406,730**  
BioCanRX contribution:  
**\$220,230**

Partners  
**6**

THE TERRY FOX RESEARCH INSTITUTE  
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#### About the project

Peritoneal carcinomatosis (spread of cancer throughout the abdomen) is the leading cause of death for patients with abdominal cancers. Many patients die with massive abdominal distention, unable to eat or breathe comfortably. Despite the dismal prognosis, biotherapies hold significant promise, even in bulky and widespread disease. This study is proposing to optimize an infected cell vaccine (ICV) prior to manufacturing and clinical testing to address this pressing unmet clinical need.

A personalized ICV is made from an individual's own tumour cells, harvested and infected with an oncolytic virus expressing an immune stimulatory protein. In preclinical models of colon cancer peritoneal carcinomatosis, they have demonstrated that an ICV using the oncolytic virus Maraba expressing the immune stimulating protein, interleukin 12 (IL-12), can eradicate multiple large tumours when delivered into the peritoneal cavity.

In collaboration with BioCanRX, and two Canadian start-up companies (Turnstone Biologics and Biodextris), they propose to further improve the efficacy of the ICV. At the end of the project an optimal ICV candidate will be identified to move forward with manufacturing and clinical trials.

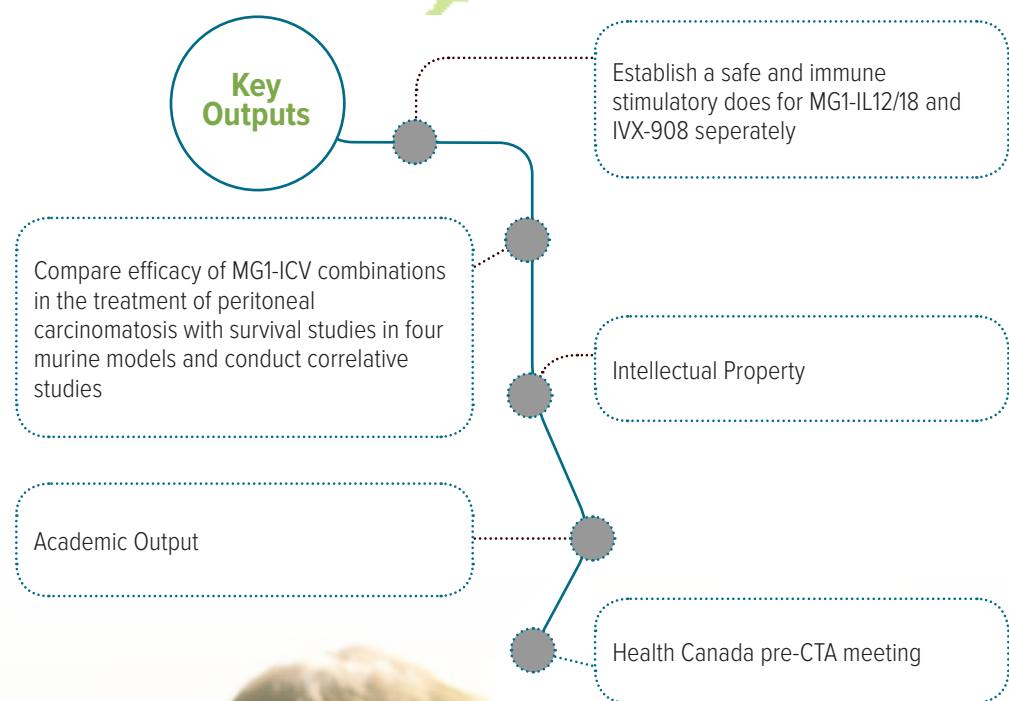
Key investigators  
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# Catalyst Program Investigators



## Partners

Biodextris  
\$25,000 (cash & in-kind)  
Cancer Research Society  
\$31,500  
Division of General Surgery,  
University of Ottawa  
\$40,000  
Hair Donation Ottawa/ The  
Ottawa Hospital Foundation  
\$50,000  
Terry Fox Research Institute  
\$40,000



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