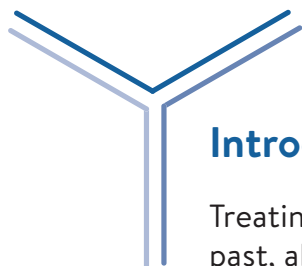
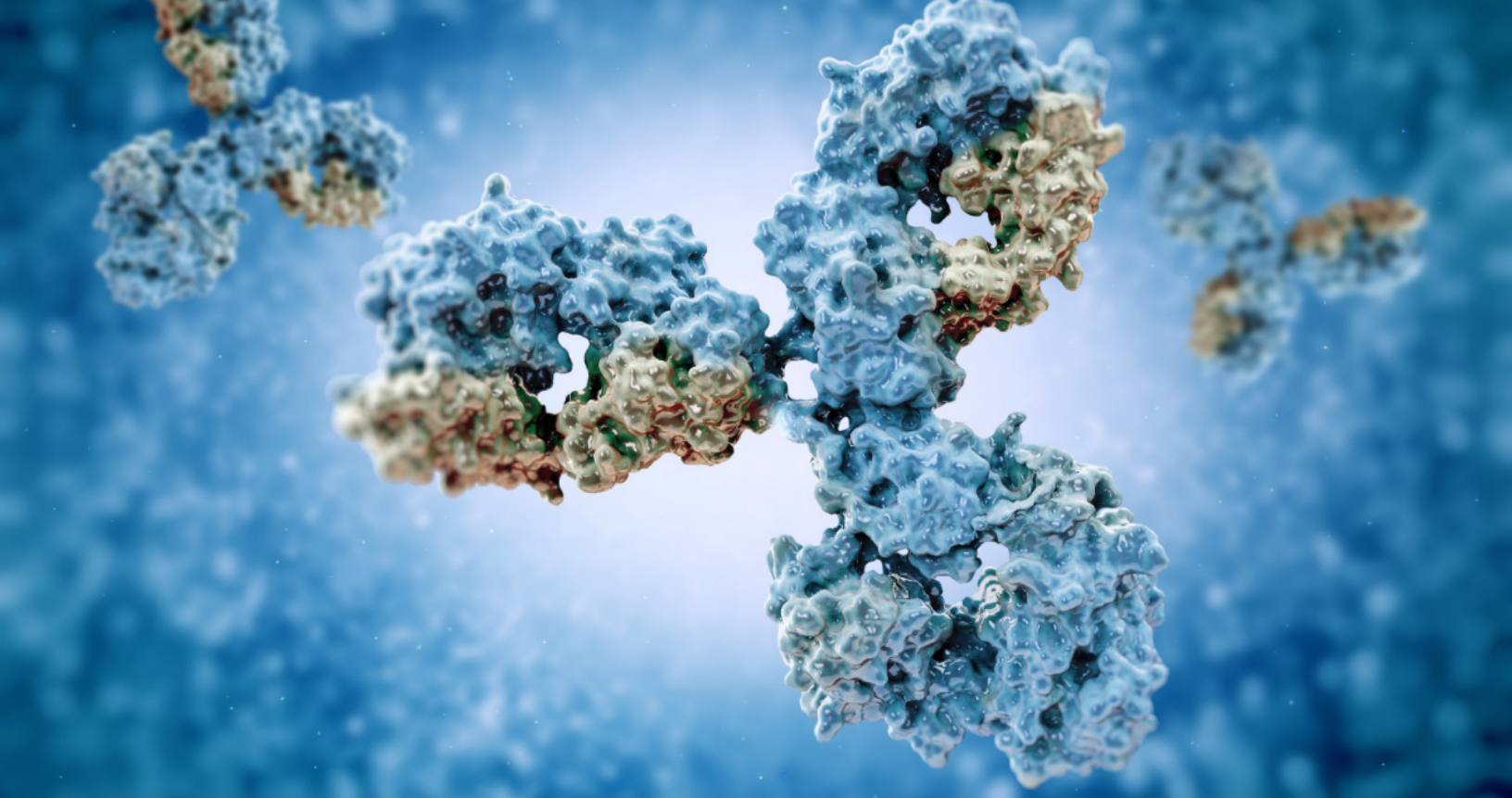




**IMMUNO**THERAPY  
EMPOWER YOUR CELLS





## Introduction

Treating colorectal cancer (CRC) has evolved over the past few decades. In the past, all patients might have received the standard therapy used for all people with colorectal cancer. Today, people with colorectal cancer may have very different kinds of tumors at the cellular level. The use of biomarkers has helped to create a more personalized approach to cancer care that helps to guide healthcare providers to make more informed decisions on your treatment options, including p goals and possible side effects.

There are many different types of treatments used to treat colorectal cancer: surgery, chemotherapy, radiation treatment and systemic treatment. One type of systemic treatment that has been noted to produce positive results in a select group of patients is immunotherapy.

### **Today, precision medicine is at the heart of immunotherapy.**

Colorectal Cancer Canada (CCC) Immunotherapy Program is directed to provide awareness and education about immunotherapy and to advocate for patient access, clinical trials health policy change to encourage additional research. CCC ability to bring multidisciplinary stakeholders together around this important treatment option will help facilitate these goals.

## Background

There have been exciting developments in the innovative treatment of cancer immunotherapy which essentially involves priming your natural immune defenses to recognize, target, and destroy cancer cells effectively. Immunotherapy is introduced when your tumor can't be successfully removed with surgery or be treated with chemotherapy and is used when your cancer spreads to other organs (metastasizes).

There are different types of immunotherapy that work by aiding the immune system in different ways. These include monoclonal antibodies, cancer vaccines and immune checkpoint inhibitors. The immunotherapy with the FDA/Health Canada approved options for colorectal cancer are immune checkpoint inhibitors. There are three approved immunotherapeutic agents: pembrolizumab (Keytruda), nivolumab (Opdivo) plus or minus ipilimumab (Yervoy) for metastatic CRC patients with MicroSatellite Instability/Deficient Mismatch Repair (MSI/dMMR).<sup>1</sup>

## Immunotherapy Program

### Mission & Vision

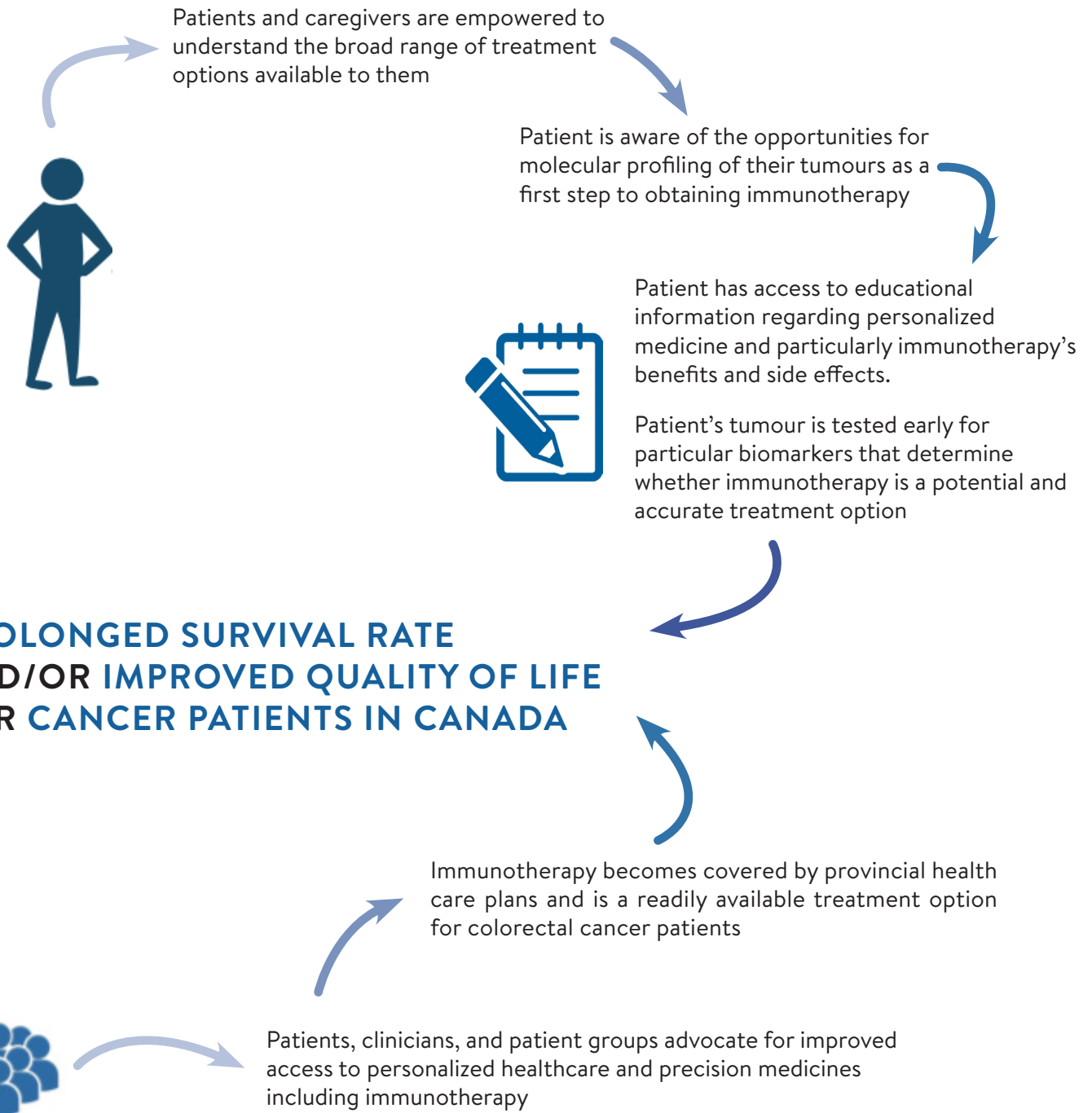
The mission of Colorectal Cancer Canada's Immunotherapy Program is to raise awareness and education on immunotherapy and advocate on behalf of colorectal cancer patients seeking access to it as a promising new cancer treatment. CCC is reaching out to the Canadian colorectal cancer patients to inform them of the benefits of immunotherapy as well as the side effects, clinical trials, and the need for funding to support immunotherapy research. In order to ensure that the right patients receive the right treatment at the right time, CCC has a particular interest in ensuring that patients are able to receive timely biomarker testing so that appropriate treatment plans can be made in a timely manner.

### Program Values

The Immunotherapy Program is dedicated to:

- Increasing cancer patients' awareness and understanding of immunotherapy's treatment goals, benefits and side effects as well as the risks.
- Patient-centric approaches that focus on the impact of immunotherapy on patients' health and the patient's lived experience (quality of life).
- Synergy between clinicians, industry, patients, health agencies and patient advocates.
- Improving equality and equity in accessing immunotherapy across all provinces in Canada in a timely manner.
- National and international partnerships to improve patient education on immunotherapy.







## Goals



Raise awareness of the critical role patients, caregivers, advocates, scientists, and physicians can play in advancing immuno-oncology clinical trials and research



Provide educational information to the public, including cancer patients and their caregivers, to help them make the most informed treatment decisions in consultation with their medical team



Increase cancer patients' understanding of personalized health care and medicine, in particular immunotherapy's benefits and side effects through educational materials and media



Identify patient experiences with immunotherapy through patient-centered surveys



Assess needs, gaps and variations in access/delivery of immunotherapy in institutions, gathered from information from patients through patient-centered surveys and cancer treatment centres



Put immunotherapy on the agenda of government, health care providers and key decision-makers to improve access to therapy and educate the public on therapy



Develop biomarker patient information including dMMR/ MSI and PD-L1 (Programmed death-ligand 1) to promote access to and the matching of molecular profiling with personalized medicines such as immunotherapy



## Key Activities

Creation of educational materials on the comprehensive array of treatment options including immunotherapy



Dialogue with national and international partners regarding approved drugs and advise for health policy change and innovation in access



Creation of educational materials on importance of specific biomarkers (MSI-H/dMMR) that make patients candidates for immunotherapy



Launch of our first survey of CRC cancer patients regarding their experiences with diagnosis and treatment choice, access to immunotherapy, side effects and impact on quality of life



Advocacy efforts to improve access and delivery of immunotherapy in Canada



Profiling of patient life experiences while on immunotherapy to raise awareness and educate the public



Social media campaign to inform the lay public of personalized medicine and immunotherapy in Canada



## Timeline

### September 2020

Development of website section on immunotherapy

Develop awareness and supporting education materials on immunotherapy in CRC for patients

Development of survey questions on patient preferences and values as it applies to immunotherapy and disseminate

Develop infographic(s) on immunotherapy

Social media campaign to educate lay public on immunotherapy

### October – December 2020

Survey data collection

Profiling of patient stories on immunotherapy

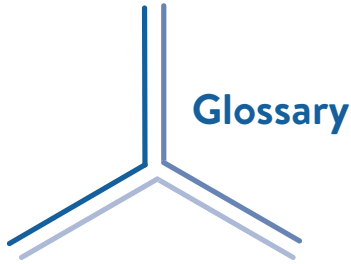
Creation of patient testimonial videos for biomarkers to promote key messages

Analyze and report survey results

Development of biomarker patient information including dMMR/MSI and PD-L1

### January – March 2021

Develop webinar with leading international and Canadian CRC immunotherapy experts



### **MSI-H/dMMR**

MSI-H stands for Microsatellite instability (MSI), dMMR stands for deficient Mismatch Repair. MSI-H/dMMR can occur when a cell is unable to repair mistakes made during the cell division process.

### **PD-1 (Programmed cell death protein 1)**

A protein on the surface of cells that has a role in regulating the immune system's response to the cells of the human body by down-regulating the immune system and promoting self-tolerance by suppressing T cell inflammatory activity.

### **PD-1/PD-L1**

A pathway that represents an adaptive immune resistance mechanism exerted by tumor cells in response to endogenous immune anti-tumor activity.

**Pembrolizumab (Keytruda)** An immunotherapy drug that targets and blocks a protein called PD-1 on the surface of certain immune cells called T-cells. Blocking PD-1 triggers the T-cells to find and kill cancer cells.

### **Nivolumab (Opdivo)**

An immunotherapy drug that targets and blocks a protein called PD-1, that stops the immune system from working properly and attacking cancer cells. It helps your immune system find and kill cancer cells.

### **Ipilimumab (Yervoy)**

An immunotherapy drug that targets and blocks a protein called CTLA-4 on the surface of certain immune cells called T-cells. Blocking CTLA-4 triggers the T-cells to find and kill cancer cells.

1. (From page 2) Diaz, L. (n.d.). Immunotherapy for Colorectal Cancer. Retrieved September 14, 2020, from <https://www.cancerresearch.org/immunotherapy/cancer-types/colorectal-cancer>





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Colorectal Cancer Canada (CCC) is the national Canadian not-for-profit corporation dedicated to colorectal cancer (CRC) awareness and education, support for patients and their caregivers, and advocacy on their behalf. CCC is comprised of dedicated volunteers, members, management and is governed by a national Board of Directors. A Medical Advisory Board, made up of top healthcare professionals in the field of colorectal cancer, provides counsel to CCC to ensure members are kept abreast of the latest medical advances in the diagnosis and treatment of the disease.

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