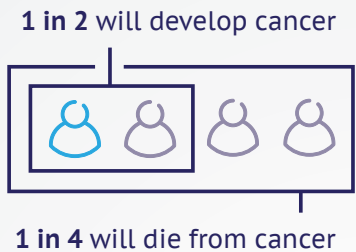


# CANCER IN CANADA<sup>1</sup>



SURGERY

RADIATION

CHEMOTHERAPY

IMMUNOTHERAPY

## HOW WE CAN TREAT CANCER

# IMMUNO-ONCOLOGY

## THE FACTS | WHAT IS IT AND HOW DOES IT WORK?

### THE IMMUNE SYSTEM

THE HUMAN BODY'S NATURAL DEFENSE SYSTEM

IT PROTECTS AGAINST HARMFUL INVADERS...

LIKE: \_\_\_\_\_ BY: \_\_\_\_\_

diseases like cancer, germs, bacteria, viruses, parasites



Detecting foreign invaders



Finding & destroying abnormal cells

### DEFENDER CELLS



When germs are present, a small fraction of defender cells will recognize them.



These cells multiply, creating an army to fight the infection.



Special types of these cells 'remember' the invader creating an immunity to a second attack (how vaccines work).

**DID YOU KNOW...** cancer cells are quite common



When normal cells become cancer cells, an immune response activates **T, B & NK cells** (defender cells) to eliminate the cancer.



Some cancer cells can change, disguising themselves as normal cells to elude attack. This allows them to grow & spread, and is why some cancers stop responding to treatments.

## IMMUNO-ONCOLOGY

A type of immunotherapy treatment that uses the human body's own immune system to fight the cancer.



slows or stops the growth of cancer cells



helps the immune system to better destroy cancer cells



stops cancer from spreading

## WHY IMMUNOTHERAPY?



- highly specific
- fewer side effects
- powerful results



- more expensive
- more work needed
- potential life threatening toxicities



# IMMUNOTHERAPIES WILL BE THE BACKBONE OF CANCER TREATMENTS IN 60% OF CANCER TYPES<sup>2</sup>



### TARGETS

The immune system is activated to fight the cancer



### ATTACKS

It recognizes & attacks on a systemic level



### REMEMBERS

It remembers the cancer cells resulting in longer remission



### VERSATILE

It is used to treat several types of cancers



IMMUNE CHECKPOINT INHIBITORS



CELL THERAPY (CAR-T)



VACCINES



VIRUS THERAPY



MONOCLONAL ANTIBODIES

## TYPES



**CONETed**  
Collective Oncology Network for Exchange, Cancer Care Innovation, Treatment Access and Education

These therapies do not work for everyone and ongoing research is trying to understand what makes a patient respond to the treatment. Treatments and results may vary by individual. Please discuss with your healthcare team to see if immunotherapy is right for you.

<sup>1</sup> <http://www.cancer.ca/-/media/cancer.ca/CW/cancer%20information/cancer%20101/Canadian%20cancer%20statistics/Canadian-Cancer-Statistics-2018-EN.pdf?la=en>

<sup>2</sup> <https://www.reuters.com/article/us-cancer-immunotherapy/immunotherapy-is-not-just-for-melanoma-anymore-idUSBRE94U05P20130531>