

# VOCABULARY

# TERRAIN DECODE

## Apoptosis

A form of programmed cell death

## Angiogenesis

The process of developing new blood vessels from pre-existing blood vessels

## Oncogene

Oncogenes promote cancer. They are over-expressed gene that contributes to tumor cell proliferation and tumor formation. i.e. RAS

## Tumor Suppressor Genes (TSG)

Genes that help to stop and repair mutated cells before re-entering cell cycles. They stop cell cycle mutation, I.E. P53. P53 is LOSS in most cancer types.

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## Metastasis

Cancer cells spread from its origin to another part of the body. All solid tumors can metastasize.

## Mitosis

A form of cell division that results in two daughter cells

## Telomeres

Located at the ends of a chromosome, shorten after each mitotic cycle for cell death. But cancer cells use the enzyme telomerase to continue their immortality.

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## Circulating Tumor Cells (CTC)

Tumors cells that are circulating CTCs have protrusions that allow them to adhere to the side of a blood vessel wall and stick in the bloodstream. The more CTCs that are present in the blood of the cancer patient the worse that patient's prognosis is.

## Somatic Mutated Genes

Replication errors occur during somatic cell divisions. Maybe a result of environmental toxins. Can not be inherited.

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## Mutated Genes

Changes in genes underlying abnormalities observed in most cancer types. Cancer cells are an accumulation of detrimental variation in the genome.

## Germline Mutated Genes

You inherited these gene mutations. It is the mutated DNA you were born with.  
{NOTE: You can acquire mutations in two different ways: somatic or germline.}

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## Metastasis Suppressor Genes

examples: KAI1, CD82, NDRG1  
These genes suppress metastasis.  
Several things must occur before  
metastasis can occur but when it  
does, there is a loss of MSG.

## Benign Tumor aka "Cancer In Situ"

Benign tumors may grow but  
as long as they do not develop  
the ability to metastasize, they  
remain benign. Note that  
benign tumors can become  
malignant.

## Malignant Tumor

- tumor cells that have the ability to  
invade neighboring tissue and  
metastasize.

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