

## **1 | Benign tumor**

**1.1 | a tumor that is not dangerous/cancerous**

**1.1.1 | not spreading or growing too fast**

## **2 | Carcinogenesis**

**2.1 | causing a cancerous mutation**

**2.2 | typically an environmental compound**

**2.3 | TODO what does ionizing radiation have to do with this causing molecular level structural damage and thus cancer? question**

## **3 | in situ cancer**

**3.1 | growing where it started (not moving)**

**3.2 | in contrast to metastatic cancer**

## **4 | metastatic cancer**

**4.1 | cancer gains the ability to invade new tissues**

## **5 | invasive cancer**

**5.1 | cancer that impacts the function of the organ or goes somewhere new**

**5.2 | a cancer can be invasive but not metastatic**

## **6 | oncogenesis**

**6.1 | the creation of cancer (after the mutation)**

## **7 | mutagenesis**

**7.1 | the mutation of a gene that might cause cancer**

## **8 | protease**

**8.1 | a protien that eats other protiens**

## 9 | **caspase**

9.1 | a family of proteins that control cell death (apoptosis)

## 10 | **autophagy**

10.1 | the process by which a cell eats itself

## 11 | **blebbing**

11.1 | a cell that is eating itself creates "waste vesicles"?

## 12 | **necrotic cells**

12.1 | explode and release tissue into the microenvironment, releasing inflammatory signals

12.2 | generally bad (does more damage than good?)

12.3 | worse than autophagy / apoptosis bc it might "give other cells ideas"

12.3.1 | other programmed cell death types are "clean", in that they put everything in waste vesicles and etc

## 13 | **cell death**

13.1 | can be attributed to

13.1.1 | apoptosis

13.1.2 | necrothosis

13.1.3 | autophagy

## 14 | **karyotype**

14.1 | counting the number / appearance of chromosomes

## 15 | **angiogenesis**

15.1 | the creation of blood vessels