Neoplasia Extra Notes By Malik Abu Osba'

Part 1

Slide 78 is not included.

Slide 24

- **Totipotential** means the ability of a cell, such as an egg, to give rise to unlike cells and thus to develop into or generate a new organism or part.

Slide 26

- From the **outside to the inside** :
    1. Seminoma
    2. Melanoma
    3. Lymphoma
    4. Mesothelioma
    5. Astrocytoma

Slide 39

- You can notice **Tripolar Mitotic Figures** in the slide (*Mercedes-Benz Sign*)

Slide 75

- When **Growth-Promoting Proto-Oncogenes** are already **mutated**, the prefix "Proto" is removed and they're simply called **Oncogens**.

Slide 76

- Tumor Suppressor Genes have **nothing** to do with inheritance factors.

Part 2

Slide 1

- **Main** Hallmarks of Cancer

Slide 2

- Genomic instability is **due to mutation**.

Slide 3

- Mutations is one of the causes of cancer. (Physiological conditions?)

Slide 6

- Glioblastomas are **autocrine**.

Slide 7

- Amplification of growth factors through receptor expression.
- HER2/NEU : The official name is (*V-erb*).
- ERBB2 is very important.

Slide 9

- It's not RAS Protein, it's Pro-RAS which is a gene .

Slide 10

- Active RAS is **short**.

Slide 11

- Neurofibromin-1 is a very important **recessive** gene.

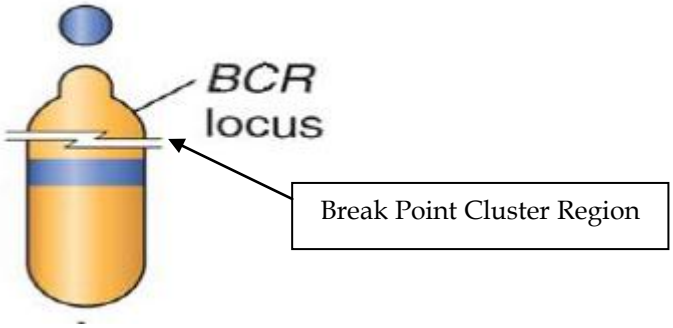
Slide 13

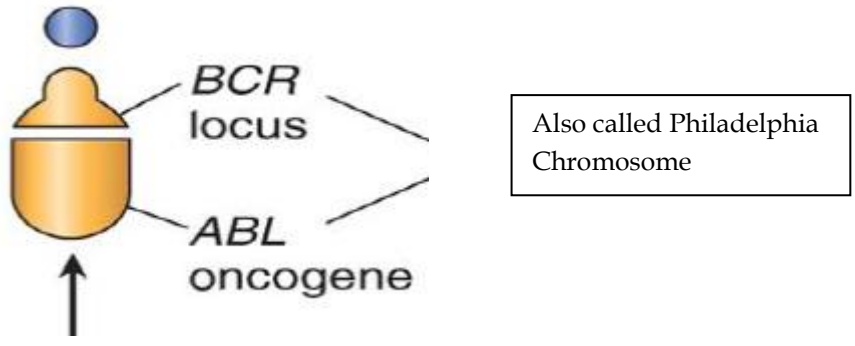
- *First line* : They're **not** always Kinases.

Slide 14

- Imatinib is **anti-Tyrosine**.

Slide 15





Slide 17

- Burkitt's Lymphoma includes **jaw enlargement**.
- Neuroblastoma mainly affects the **adrenal medulla in children**.

Slide 18

- Cell at G0 phase => Enter the cell cycle
- G = Gap

Slide 19

- The sill which is located between G_2 to M defines what is known as a **check point**.
- CDK Inhibitors (*p15, p16, p18 & p19*) inhibit CDK Complexes **4 & 6**.
- CDK Inhibitors (*p21, p27 & p57*) inhibit **all** CDK Complexes.
- CDK2/Cyclin E drives the cell in the **G1 -S phase**.

Slide 23

- MCL cells generally over-express Cyclin D1 due to the **chromosomal translocation at 11:14**.

Slide 24

- RB gene is **recessive** (*Needs two mutant alleles*).

Slide 25

- In the familial & sporadic forms, the final mutation is **somatic**.

Slide 30

- Remember that CDK2/Cyclin E drives the cell in the G1 -S phase