

- \* The first virus linked to a human tumor → EBV (HHV4)
- \* The first bacteria linked to human tumor → *H. pylori*

\* RB

- active → hypo phosphorylated.
- inactive → hyper phosphorylated.

- \* most common oncogen → RAS
- \* most common TSG → TP53
- \* most common in all → TP53 very imp
- \* The three leading causes of cancer death: carcinomas of:

① lung      ② colon      ③ breast

- \* mutation in TGF- $\beta$  → 100% Pancreatic cancer  
83% Colon Cancer

- \* loss of APC → ① desmoid tumor (fibromatosis)  
② Colonic adenocarcinoma

- \* IDH mutation found in: ① acute myeloid leukemias  
② gliomas      ③ sarcomas

- \* acute Myeloid Leukemia ⇒ IDH mutations
- \* Chronic Myeloid leukemia ⇒ translocation (9, 22) (ABL - BCR)

- \* Breast Cancer types:

- ① invasive ductal carcinoma → most common
- ② invasive lobular carcinoma → 2nd most common