

Necroptosis “programmed necrosis”

* **Slide 3 (slides 33+34)**

* **Sheet #4** □

Page 10

Last paragraph

We will talk about the TNF receptors -

So TNF receptors are common in both the extrinsic pathway and the necroptosis .-

TNF receptors (TNFR 1) binds TNF and this complex (RIP) , which is the receptor associated kinase , recruits caspase 8 so extrinsic pathway , but if we have failure in activating caspase 8 , this same complex is now called the necrosome , and it induces metabolic alteration in the mitochondria that reduce ATP , and increase the production of ROS .

Now necrosis and apoptosis can co-exist in the same pathway.

One of the viruses that encode caspase inhibitors is CMV virus

Necroptosis is important in acute pancreatitis, reperfusion injury,

Also in Parkinson's disease you can observe necroptosis in substantia nigra .

21q deletion

* **Slide 16 (slide no. 6+7)** □

6 - **TMPRSS-ETS***

From deletion on chr. 21 or

Translocation

7 - 21q deletions

* **Sheet #18** □

Page 6

First 2 paragraphs

- Prostate cancer can happen because of translocation of chromosome 21 or from deletion of part of chromosome 21 because there is another ETS family transcription factor on chromosome 21, so the region between TMPRSS and ETS gene will be deleted and there will be a fusion product.

- TMPRSS 2 on chromosome 21 and ERG an ETS family transcription factor gene, normally you can detect karyotypically by attaching fluorescence material to ERG upstream(5',five prime) and downstream (3',three prime),if this area is deleted ,this particular fluorescence material can't bind and you find one of the chromosome rather than having green and red ,have only a red color and this indicates that this region has been deleted, creating a new fusion product that is androgenic responsive in case of prostate cancer.