

1-fibrillin mutation cause : marfan syndrome

2-COPI mutation → retrieval of proteins within the golgi apparatus

3-mitochondrial fission → segregation of damaged mitochondria

4- I-cell disease → mannose-6-phosphate

5-collagen → fibrillar collagen mutation causes osteogenesis imperfecta

6-treadmilling → actin filaments and microtubules

7-protein with dynein head and kinesin tail → to the minus end

8-how to distinguish between oncogene tumor suppressor gene → enhanced activity of oncogenes facilitates tumor proliferation

9-cancerous cells lack all of the following except → angiogenic potential

10-which of the following is required for the correct and accurate alignment of chromosomes on the mitotic spindle → spindle assembly checkpoint

11- NFkB pathway , which is correct → ubiquitination and degradation to activate ikb

12-peroxisomes are increased in the brain tissues during stroke, why → to increase the amount of catalase to tolerate oxidative stress

13- DMD → dystrophin mutation affects the attachment of actin filaments to the plasma membrane + actin-myosin interaction is abnormal (the answer was more than one of the above)

14-which of the following anchors is added in the ER → GPI anchors

15-emphysema → inactivation of alpha-1 antitrypsin causes activation of elastase

16- apoptotic cells are characterized by → fragmentation of the cell component by caspases

17- wrong about lipid rafts → sth about myristoylation

18-correct about golgi → o-linked glycosylation enzymes are transmembrane proteins and the carbs direct the protein to the apical surface

19-if we mutate thr amino acid what will be affected → o-linked glycosylation

20-farnesylation occurs → in the inner leaflet

21- polypeptide synthesized in the free ribosomes → for mitochondria

22- all decrease the T_M or melting temperature except → adding Na^+

23- wrong about central dogma of biology → protein to RNA

24- which one is palindromic sequence? read from left to right above as from right to left below