**Immuno-oncology**

1. CTLA-4 is involved in the connection:
2. Τ-cell/cancer cell
3. APC/cancer cell
4. APC/T-cell

 2) Tregs have:

 a) Anti-tumor activity

 b) Pro-tumor activity

1. Anti-PDL1 used in the stage:
2. Killing of cancer cells
3. Priming and activation
4. Release of neoantigens
5. Cancer antigen presentation
6. Immunotherapy serious side effects typically occur in less than \_\_ of patients:
7. 10%
8. 50%
9. 5%
10. 25%
11. 90%
12. Immunotherapy mild side effects can occur in up to \_\_ of patients:
13. 5-10%
14. 3-5%
15. 30-50%
16. 70-90%
17. 30-50%
18. 50-70%
19. Which year was the first immune checkpoint inhibitor approved?
20. 1989
21. 1999
22. 2011
23. 2017
24. 2002
25. Anti-CTL4 used in the stage:
26. Killing of cancer cells
27. Priming and activation
28. Release of neoantigens
29. Cancer antigen presentation
30. PDL-1 is involved in the connection:

a) Τ-cell/cancer cell

b) APC/cancer cell

1. APC/T-cell
2. PDL-1 is located:
3. T-cell
4. APC
5. Cancer cell

 10) PD-1 is located:

 a) T-cell

 b) APC

 c) Cancer cell

**Cancer cells Characteristics**

1) Normal cells have:

a) Larger cytoplasmic volume and darker nucleus

b) Alkaline environment and multiple nucleolus

c) Acidic environment and larger cytoplasmic volume

d) Alkaline environment and almost smooth membrane

2) How many are the driver mutations?

a) 3,300

b) 140

c) 20,000

d) 3

3) About Grade:

a) The higher the grade, the more abnormal the cells look and the faster it is likely to grow and spread

b) The higher the grade, the more normal the cells look and the faster it is likely to grow and spread

4) Poorly differentiated is Grade:

a) 1

b) 2

c) 3

d) 4

5) N-cadherin is a/an:

a) Mesenchymal Marker

b) Epithelial Marker

6) Epithelial Markers are:

a) Mucin-1, Vimentin

b) b-catenin, Claudins, Cytokeratins

c) MMPs, Mucin-1, Vimentin

d) Mucin-1, Vimentin, Cytokeratins

e) None of the above

7) What is correct about Stage II?

a) Size- Cancer has grown in size but without any spread to surrounding tissues

b) Localized- The size of the cancer is small, showing no signs of spread to other areas of the body

c) Distant- Cancer spreads to areas away from the primary tumor, that is, at least to another body organ that is away from the primary tumor.

d)  Regional- The size of the cancer is big and has spread to nearby lymph nodes, tissues, and organs