

Study Questions:

June 7, 2016

(Note: part "A" Qs are basic cancer-immuno queries; part "B" Qs are glycan-related)

1. A. "Who" are the cell-players involved in host anti-cancer immunity?
- How is immunity "subverted"?
- B. Name three ways glycans may shut-down anti-tumor cellular immunity.
2. A. What humoral immune mechanisms are at work in cancer?
- B. How do glycans modify humoral immunity?
3. A. Describe the "Immune Synapse" in cancer.
- B. How might glycans and glycan-binding proteins participate in the synapse?
4. A. Name some successful strategies in cancer immunotherapy.
Why do they work so well in some tumors? (Clue: Hi "neo-antigen" load)
- B. Describe "TACAs." What are typical TACA biosynthesis patterns in cancer?
Do genomic glycosyltransferases "mutate" in cancer?
Are there TACA Neo-Antigens?
5. A. What are impediments to cancer vaccines?
- B. Explain how TACAs might be optimally "harnessed" into vaccines. Examples?
- How could one stimulate immunity versus Tn or sialyl-Tn cancer epitopes?
- Can one immunize against a "self" glycans overexpressed by cancer?
6. Surmise some strategies to overcome glycan immune-silencing.