T. Perez | 10-5-‘18 | List\_1 of contributions |

[New format if acceptable. I somehow felt an short “introduction would be helpful”]

We rely on protection from foreign invaders of our body by several means and mechanisms including white blood cells. Certain white blood cells called T-cells from the thymus are triggered. Once summoned, they form a line of defense if and when we feel or become ill. Certain T-cells called killer T-cells, AKA cytotoxic T-lymphocytes (CTL), hopefully become robust enough and long enough to attack destructive viruses like the T-cell leukemia virus types.

†The pathways of these natural killer cells’ activation are discussed in Dr. Dominik Wodarz (UC Irvine) book, Killer Cell Dynamics – Mathematical Approaches to Immunology. I introduce a very simple graphic concept of this.

ªIn addition I introduce a relatively new concept discovered by Dr. Hao Yuan Kueh (Caltech) into the Wodarz models, and realize interactions and metrics of both systems in collaboration with each other. The contributions are as follows;

• An effort for the appreciation of the complexity of just these few mechanisms of our immune

system, to attack, silence, control, or hopefully destroy viruses and cancers.

• My personal view (no pun) of the interaction of both these concepts († ª) working together. The

research paper abstract will offer a bit more insight.