$$\underbrace{\frac{dX}{dt}}_{\text{cancer cell rate of change}} = \overbrace{\rho X\left(1-\frac{X}{K}\right)}^{\text{logistic growth of cancer cells}} - \overbrace{\kappa_1 XY}^{\text{CAR T-cell induced cancer cell death}}$$

$$\underbrace{\frac{dY}{dt}}_{\text{CAR T-cell rate of change}} = \underbrace{\kappa_2 XY}_{\text{cancer cell stimulated proliferation or exhaustion of CAR T-cells}} - \underbrace{\theta Y}_{\text{CAR T-cell death}}$$