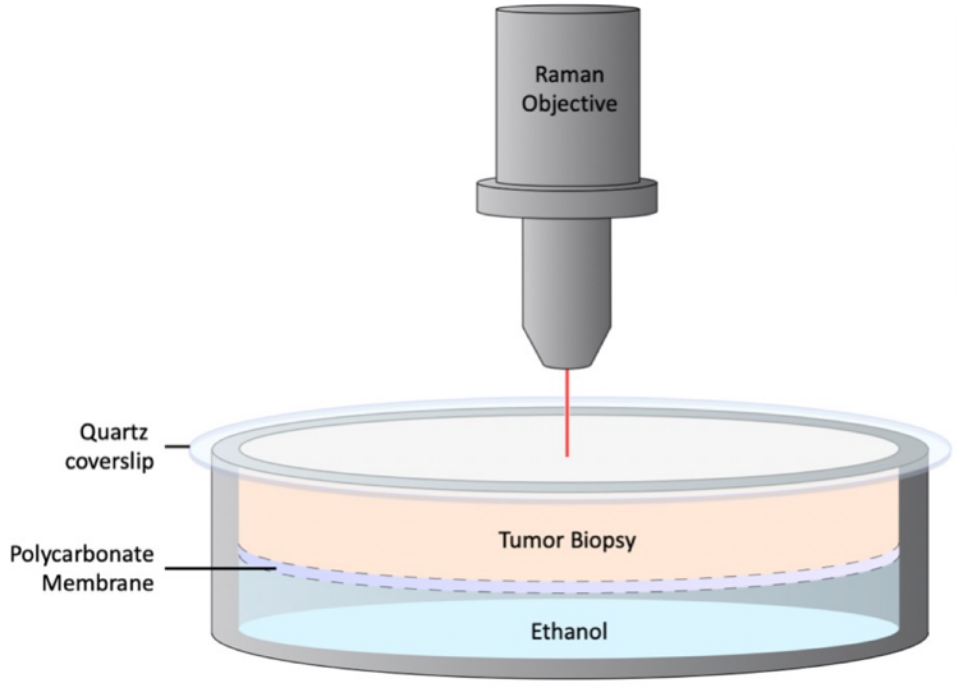

$$\frac{\partial C_T}{\partial t} = D_T \frac{\partial^2 C_T}{\partial x^2} - k_{EV} C_T$$

h_T

$$\frac{\partial C_E}{\partial t} = D_E \frac{\partial^2 C_E}{\partial x^2}$$

h_E

Initial Conditions:

$C_t(x,0) = 0$

$C_E(x,0) = 0$

Boundary Conditions:

$$\frac{\partial C_T}{\partial x} = 0 \quad @\ (x = 0)$$

$$C_T = \phi_T C_E \quad @\ (x = h_T)$$

$$D_T \frac{\partial^2 C_T}{\partial x^2} = D_E \frac{\partial^2 C_E}{\partial x^2} \quad @\ (x = h_T)$$

$$\frac{\partial C_E}{\partial x} = 0 \quad @\ (x = h_T + h_E)$$