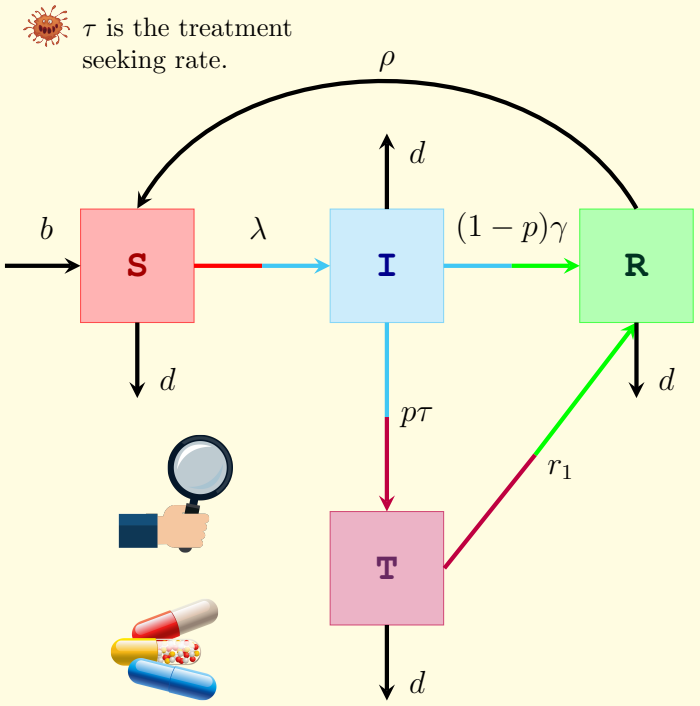

Drug Therapy **SITRSBD** Measles Model 2

System of ODEs

We define the parameter $\mu = d = b$.

$$\frac{d\mathbf{S}}{dt} = \mu \mathrm{N} - \beta \mathbf{I}\mathbf{S} - \mu \mathbf{S} + \rho \mathbf{R} \tag{1.1}$$

$$\frac{d\mathbf{I}}{dt} = \beta \mathbf{I}\mathbf{S} - p\tau \mathbf{I} - \mu \mathbf{I} - (1-p)\gamma \mathbf{I} \tag{1.2}$$

$$\frac{d\mathbf{T}}{dt} = p\tau \mathbf{I} - r_1 \mathbf{T} - \mu \mathbf{T} \tag{1.3}$$

$$\frac{d\mathbf{R}}{dt} = r_1 \mathbf{T} - \mu \mathbf{R} - \rho \mathbf{R} + (1-p)\gamma \mathbf{I} \tag{1.4}$$