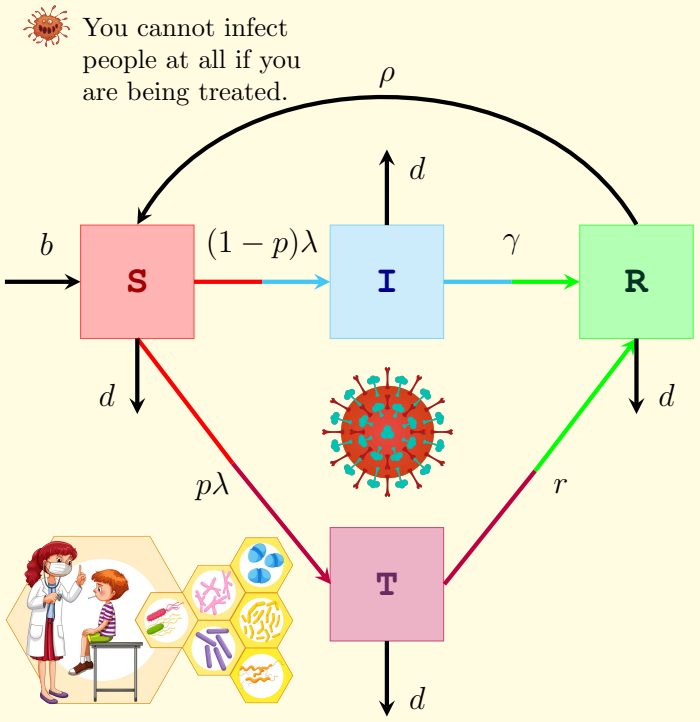

Drug Therapy **SITRSBD** Measles Model 3

System of ODEs

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

$$\frac{d\mathbf{S}}{dt} = \mu \mathrm{N} - p\beta\mathbf{IS} - \mu\mathbf{S} + \rho\mathbf{R} - (1-p)\beta\mathbf{IS} \tag{1.1}$$

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

$$\frac{d\mathbf{T}}{dt} = p\beta\mathbf{IS} - r\mathbf{T} - \mu\mathbf{T} \tag{1.3}$$

$$\frac{d\mathbf{R}}{dt} = r\mathbf{T} - \mu\mathbf{R} - \rho\mathbf{R} + \gamma\mathbf{I} \tag{1.4}$$