$$
\begin{aligned}
\frac{dL(t)}{dt} &= -a_L(L(t)) + \beta_L(P(1 - (\frac{P}{\gamma_L}))) + B_L(A_p) \\
\frac{dP(t)}{dt} &= -a_P(P(t)) + \beta_P(L(t)) + \beta_P \frac{A_L}{1 + D_P(I_P(t))} \\
\frac{dIp(t)}{dt} &= -a_{IP} I_P(t) + B_{IP}(P(t))
\end{aligned}
$$