

Elements:

- depot compartment: Ad
- central compartment: Ac, V
- linear elimination, k
- 1st order absorption, ka

Generic controlled
vocabulary for PK
models

PharmML

Automatic
translation
(always
possible)

System of
ODEs

Expert knowledge
(solution doesn't
always exist)

Analytic
solution

$$\frac{dAd}{dt} = -ka Ad$$

$$\frac{dAc}{dt} = ka Ad - k Ac$$

$$C = Ac/V$$

$$C(t) = \frac{D}{V} \frac{k}{ka - k} (\exp(-k*t) - \exp(-ka*t))$$

PREDPP

Mapping to
tool-specific
libraries

Monolix
library

XYZ
library