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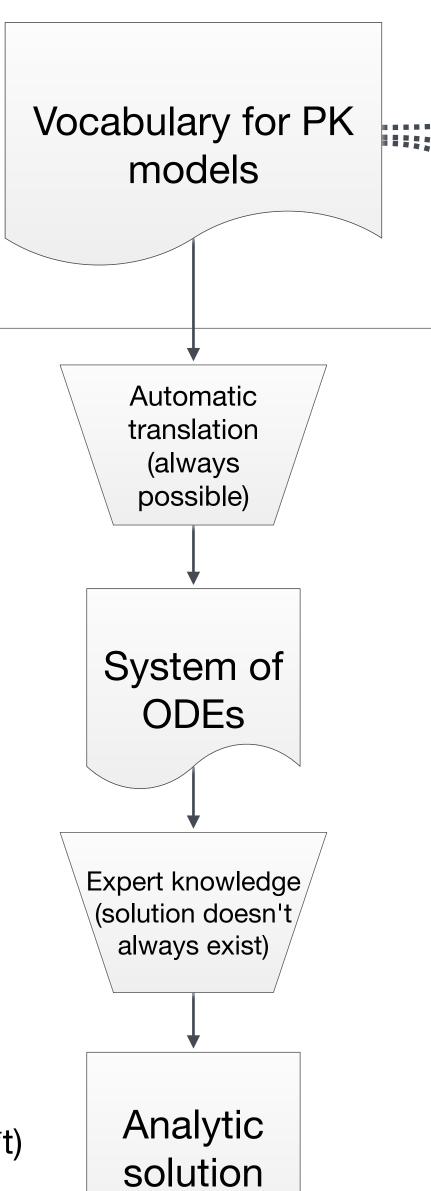
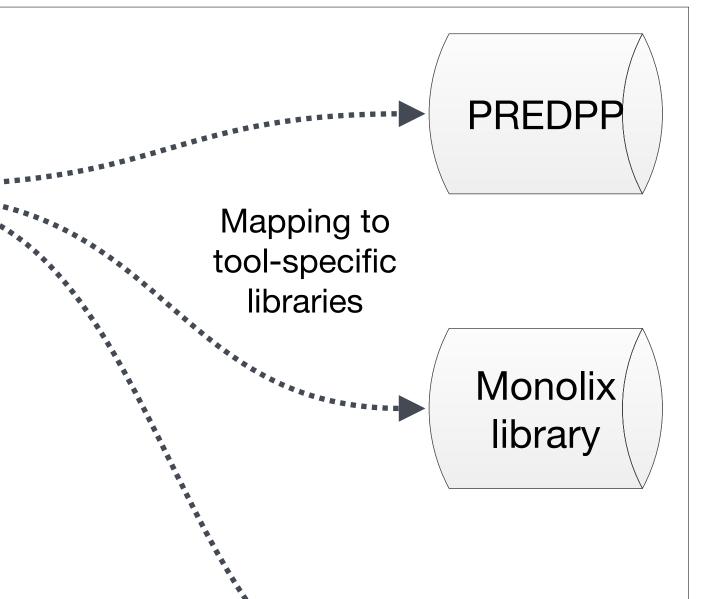MDL/PharmML

Vocabulary for PK models

Mapping to tool-specific libraries

PREDPP

Monolix library

XYZ library

Automatic translation (always possible)

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

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

$$C = Ac/V$$

System of ODEs

Expert knowledge (solution doesn't always exist)

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

Analytic solution