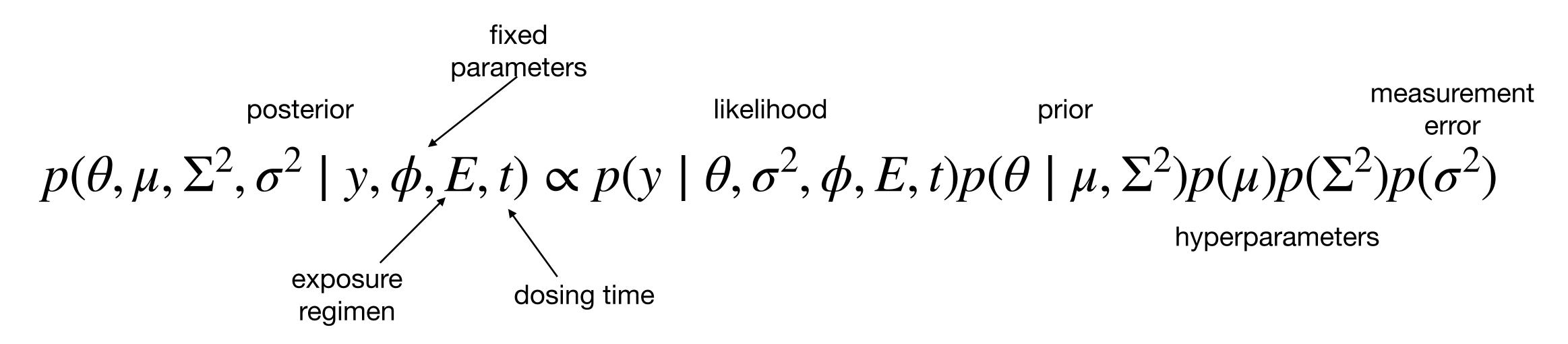
## Posterior distribution merges ALL information



- Modelling assumptions have to make sense
  - Note 1: physiological parameters can be naturally truncated
  - Note 2: certain random quantities are positive and skewed right log-normal distribution
  - Note 3: parameters are high-dimensional vectors

## PBPK model unknows vs. amount of data

- May not be possible to uniquely identify the parameter values heta
- Drop out non-sensitive parameters based on matrix of sensitivity functions

$$\frac{\partial y_i}{\partial \theta_i} \cdot \frac{\Delta \theta_j}{\Delta y_i}$$

- Which parameters  $\Theta_j$  cause large/small changes to output  $y_i$  when changed?
  - Fix parameters that are non-sensitive
    - Part of "Preliminary model calibration"