**Table S2.** Comparison of PK parameters between simulated and observed data for PBPK model verification of erlotinib and nilotinib

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Simulated (n=50) | | Observed (n=5) | |
| Erlotinib 150 mg daily, multiple dose, fasted (Togashi et al., 2010)1 | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** |
| Geometric mean | 37480 | 2020 | 42443 | 2337 |
| CV (%) | 56 | 44 | 35 | 32 |
| Ratio of simulated/observed | 0.88 | 0.86 |  |  |
| Success criteria for ratio of simulated/observed | 0.52-1.91 | 0.56-1.81 |  |  |
|  | **Simulated (n=60)** | | **Observed (n=6)** | |
| Erlotinib 150 mg daily, single dose, fasted  (Yamamoto et al., 2008)2 | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** |
| Mean | 9917 | 655 | 12845 | 958 |
| CV (%) | 37 | 31 | 29 | 48 |
| Ratio of simulated/observed | 0.77 | 0.68 |  |  |
| Success criteria for ratio of simulated/observed | 0.61-1.65 | 0.45-2.20 |  |  |
|  | **Simulated (n=60)** | | **Observed (n=6)** | |
| Erlotinib 150 mg daily, multiple dose, fasted  (Yamamoto et al., 2008)2 | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** |
| Mean | 50968 | 2511 | 42769 | 2384 |
| CV (%) | 68 | 59 | 48 | 39 |
| Ratio of simulated/observed | 1.19 | 1.05 |  |  |
| Success criteria for ratio of simulated/observed | 0.45-2.2 | 0.52-1.93 |  |  |
|  | **Simulated (n=150)** | | **Observed (n=15)** | |
| Nilotinib 400 mg BD daily, multiple dose, fasted (Larson et al., 2012)3 | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** | **AUCτ (ng.h/mL)** | **Cmax**  **(ng/mL)** |
| Geometric Mean | 15403 | 1551 | 13656 | 1595 |
| CV (%) | 104 | 94 | 51 | 47 |
| Ratio of simulated/observed | 1.08 | 0.88 |  |  |
| Success criteria for ratio of simulated/observed | 0.43-2.32 | 0.46-2.17 |  |  |

AUCτ, area under the plasma concentration-time curve during a dosage interval at steady state; Cmax, maximum plasma concentration; CV, coefficient of variation

**References**

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