Correction to "Physiologically Based Pharmacokinetic Modeling to Predict Transporter-Mediated Clearance and Distribution of Pravastatin in Humans"

In the above article [Watanabe T, Kusuhara H, Maeda K, Shitara Y, and Sugiyama Y (2009) *J Pharmacol Exp Ther* **328:**652–662], the differential mass balance equations for "Liver 1 to 5," "Liver extracellular compartment 1," and "Bile or gastrointestinal tract" on page 660 were incorrect. In addition, Fig. 1 was incorrect. The corrected equations and figure appear below.

Liver 1 to 5:

(1) rat $(V_{Hi}/5)(dC_{Hi}/dt) = (V_{m,inf}/5)\,f_B C_{HEi}/(K_{m,inf} + f_B C_{HEi}) + (PS_{dif}/5)f_B C_{HEi}$

$$- (PS_{dif}/5)\,f_T C_{Hi} - (V_{m,bile}/5)\,f_T C_{Hi}/(K_{m,bile} + f_T C_{Hi}) - (V_{m,met1}/5)\,f_T C_{Hi}/(K_{m,met1} + f_T C_{Hi})$$

$$- (V_{m,met2}/5)\,f_T C_{Hi}/(K_{m,met2} + f_T C_{Hi})$$

(2) human $(V_{Hi}/5)(dC_{Hi}/dt) = (PS_{inf}/5)f_B C_{HEi} + (PS_{dif}/5)f_B C_{HEi}$

$$- (PS_{dif}/5)\,f_T C_{Hi} - (PS_{bile}/5)\,f_T C_{Hi} - (CL_{met}/5)f_T C_{Hi}$$

Liver extracellular compartment 1:

(1) rat (intravenous) $(V_{HE1}/5)(dC_{HE1}/dt) = Q_H(C_B - C_{HEi})$

$$- (V_{m,inf}/5)\,f_B C_{HEi}/(K_{m,inf} + f_B C_{HEi}) - (PS_{dif}/5)\,f_B C_{HEi} + (PS_{dif}/5)\,f_T C_{Hi}$$

(1′) rat (intraduodenal) $(V_{HE1}/5)(dC_{HE1}/dt) = Q_H(C_B - C_{HEi})$

$$- (V_{m,inf}/5)\,f_B C_{HEi}/(K_{m,inf} + f_B C_{HEi}) - (PS_{dif}/5)\,f_B C_{HEi} + (PS_{dif}/5)\,f_T C_{Hi} + k_a X_{GI}$$

(2) human $(V_{HE1}/5)(dC_{HE1}/dt) = Q_H(C_B - C_{HEi}) - (PS_{inf}/5)f_B C_{HEi}$

$$- (PS_{dif}/5)\,f_B C_{HEi} + (PS_{dif}/5)\,f_T C_{Hi} + k_a X_{GI}$$

Bile or gastrointestinal tract:

(1) rat $dX_{bile}/dt = \Sigma((V_{m,bile}/5)\,f_T C_{Hi}/(K_{m,bile} + f_T C_{Hi}))$

(1′) rat (intraduodenal) $dX_{GI}/dt = -(k_a/Fa)X_{GI}$

(2) human $dX_{GI}/dt = \Sigma((PS_{bile}/5)\,f_T C_{Hi}) - (k_a/Fa)X_{GI}$

The simulations were based on the correct equations and not on the previously published equations.

The online version of this article has been corrected in departure from the print version.

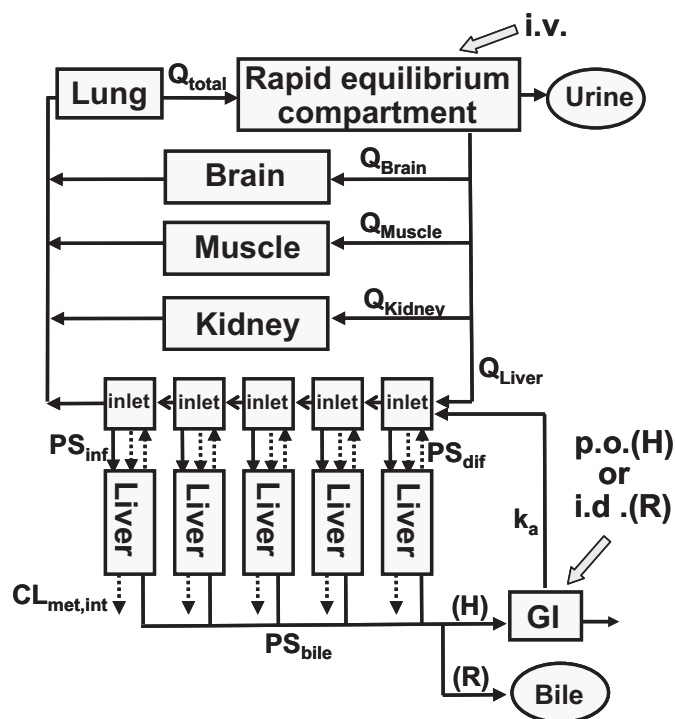The authors regret this error and apologize for any confusion or inconvenience it may have caused.

Fig. 1. Schematic diagram of the PBPK model predicting the concentration-time profiles of pravastatin. The liver compartment was divided into five compartments to mimic the dispersion model. Indicated are the blood flow (Q), the active hepatic uptake clearance (PS_{inf}), the passive diffusion clearance (PS_{dif}), the biliary clearance (PS_{bile}), and the metabolic clearance ($CL_{met,int}$), human (H), and rat (R). The enterohepatic circulation was incorporated in the case of humans.

Correction to Spine, Volume 337, Number 1, April 2011

In the issue referenced above, the journal's spine shows incorrect page numbers for the issue. The correct page numbers are 1 to 322.

The printer, Cadmus Communications, regrets this error and apologizes for the inconvenience and confusion it has caused.