



Corrigendum



Corrigendum to “*In vitro* enantioselective inhibition of key human CYP450 enzymes by the chiral fungicide penconazole” [Environ. Toxicol. Pharmacol. 118 (2025) 104790]

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The authors regret that an error was identified in Equation 2, which is used for the calculation of the R_1 values. In the published version, the denominator did not include the multiplication by the microsomal unbound fraction of penconazole ($f_{u,mic}$). Consequently, the R_1 values originally reported in Table 4 were recalculated using the corrected equation. Importantly, this correction does not alter the interpretation, discussion, or conclusions of the manuscript. Below, we provide the corrected items in detail.

Corrected equation: Equation 2

$$R_1 = 1 + \frac{I_{max,u}}{K_i \times f_{u,mic}}$$

where $I_{max,u}$ is the maximum free inhibitor concentration (PEN), equal to $1.2571 \mu\text{mol L}^{-1}$ or $0.04713 \mu\text{mol L}^{-1}$ when considering the acute reference dose or acceptable daily intake from FAO/WHO; K_i is the inhibition constant and $f_{u,mic}$ is the microsomal unbound fraction of penconazole, equal to 0.57 (Barbetta et al., 2025).

Corrected table:

On page 7 (last paragraph of the left column), the R_1 value reported for CYP3A4 using midazolam as the probe substrate was 1.06; the correct value is 1.07. Also, on page 7 (second paragraph of the right column), the R_1 value reported considering 62 % of the ADI for CYP3A4 using midazolam as the probe substrate was 1.04; the correct value is 1.05.

The authors would like to apologise for any inconvenience caused.

Table 4
Inhibition coefficients and R_1 values.

Isoform	Inhibition mechanism	$K_i / \alpha K_i (\mu\text{mol L}^{-1})$	R_1^c (ARd ^d)	R_1^c (ADI ^e)
CYP1A2	Competitive	3.9	1.51	1.02
CYP2C9	Competitive	5.8	1.26	1.01
CYP3A4/5 ^a	Mixed	0.75/0.73	3.00	1.07
CYP3A4/5 ^b	Competitive	8.1	1.20	1.01

Monitored reaction for CYP3A4/5 with midazolam (a) and nifedipine (b). (c) R_1 values greater than 1.02 indicate that *in vivo* inhibition should not be disregarded, and further studies should be carried out. (d) acute reference dose described by the FAO/WHO: 0.8 mg kg^{-1} . (e) acceptable daily intake described by FAO/WHO: 0.03 mg kg^{-1} . The $f_{u,mic}$ values of PEN, corrected for the protein concentration used in each isoform assay, were 0.63, 0.84, 0.84, and 0.78 for CYP1A2, CYP2C9, CYP3A4/5^a, and CYP3A4/5^b, respectively.

DOI of original article: <https://doi.org/10.1016/j.etap.2025.104790>.

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<https://doi.org/10.1016/j.etap.2025.104890>

Available online 4 December 2025

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Reference

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