Supplementary Table 1 Mathematical expressions for the considered inhibition types and their description.

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| **Inhibition type** | **Equation** | **Description** |
| **Competitive** | $$V\_{0}=\frac{V\_{max}\*\left[S\right]}{K\_{m}(1+\frac{I}{K\_{i}})+[S]}$$ | Inhibitor binds on the same active site as substrate |
| **Partial competitive** | $$V\_{0}=\frac{V\_{max}\*[S]}{K\_{m}\frac{1+\frac{I}{K\_{i}}}{1+\frac{I}{αK\_{i}}}+[S]}$$ | Competitive inhibition with residual activity and different affinity for the substrate towards the enzyme and enzyme-inhibitor complex |
| **Non-competitive** | $$V\_{0}=\frac{V\_{max}\*\left[S\right]}{\left(K\_{m}+\left[S\right]\right)\*(1+\frac{I}{K\_{i}})}$$ | Inhibitor binds on an allosteric site of the enzyme. |
| **Partial non-Competitive** | $$V\_{0}=\frac{V\_{max}\*\left[S\right]\*(1+\frac{βI}{K\_{i}})}{\left(K\_{m}+\left[S\right]\right)\*(1+\frac{I}{K\_{i}})}$$ | Non-competitive inhibition with residual activity but equal affinity of the substrate towards the enzyme and enzyme-inhibitor complex |
| **Uncompetitive** | $$V\_{0}=\frac{V\_{max}\*\left[S\right]}{K\_{m}+[S](1+\frac{I}{K\_{I}})}$$ | Inhibitor binds only to the enzyme-substrate complex |
| **Partial uncompetitive** | $$V\_{0}=\frac{V\_{max}\*[S]}{K\_{m}+[S]\frac{1+\frac{I}{αK\_{i}}}{1+\frac{I}{K\_{i}}}}$$ | Uncompetitive inhibition with residual activity and affinity for the substrate towards the enzyme-inhibitor complex |
| **Mixed** | $$V\_{0}=\frac{V\_{max}\*\left[S\right]}{K\_{m}(1+\frac{I}{K\_{i}})+[S](1+\frac{I}{αK\_{I}})}$$ | Inhibitor has different affinity to the enzyme and enzyme-substrate complex but without residual activity. |
| **Partial Mixed** | $$V\_{0}=\frac{V\_{max}\*\left[S\right]\*(1+\frac{βI}{αK\_{i}})}{K\_{m}(1+\frac{I}{K\_{i}})+[S](1+\frac{I}{αK\_{I}})}$$ | Inhibitor has different affinity to the enzyme and enzyme-substrate complex with residual activity. |

V0, biotransformation rate; Vmax, maximal biotranformation rate; Km, Michaelis-Menten constant; Ki, inhibition constant; [S], substrate concentration; α affinity constant modulator for enzyme-inhibitor complex; β catalytic rate constant modulator for enzyme-inhibitor-substrate complex

Supplementary Table 2 Used substrate and mycotoxin concentrations for the investigation of inhibition type in porcine hepatic microsomes. Only substrates (corresponding to a specific CYP enzyme) for which residual CYP enzyme activity is <80% in the orientation experiment were selected

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| Substrate concentrations (µM) |
| TB (CYP2C) | 5 | 10 | 50 | 100 | 200 | 400 |
| DXM (CYP2D) | 0.1 | 0.5 | 1 | 5 | 20 | 100 |
| MDZ (CYP3A) | 0.5 | 2 | 5 | 10 | 20 | 50 |
| CM (CYP2A) | 0.25 | 0.5 | 2 | 5 | 20 | 100 |
| Mycotoxin concentrations for each substrate (µM) |
| ZEA-DXM | 0 | 1 | 10 | 100 |
| ZEA-TB | 0 | 0.1 | 1 | 10 |
| ZEA-MDZ | 0 | 0.5 | 5 | 20 |
| T-2-TB | 0 | 1 | 10 | 50 |
| T-2-MDZ | 0 | 1 | 10 | 100 |
| FB1-CM | 0 | 0.1 | 1 | 5 |

ZEA, zearalenone; T-2, T-2 toxin; FB1, fumonisin B1; TB, tolbutamide; CM, coumarin; MDZ, midazolam; DXM, dextromethorphan

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| Afbeeldingsresultaat voor zearalenone | Afbeeldingsresultaat voor T-2 toxin |
| Afbeeldingsresultaat voor fumonisin b1 | Afbeeldingsresultaat voor deoxynivalenol |
| Supplemental Figure 1. Chemical structures of the investigated mycotoxins. Upper left, zearalenone; upper right T-2 toxin; lower left, fumonisin b1; lower right, deoxynivalenol |