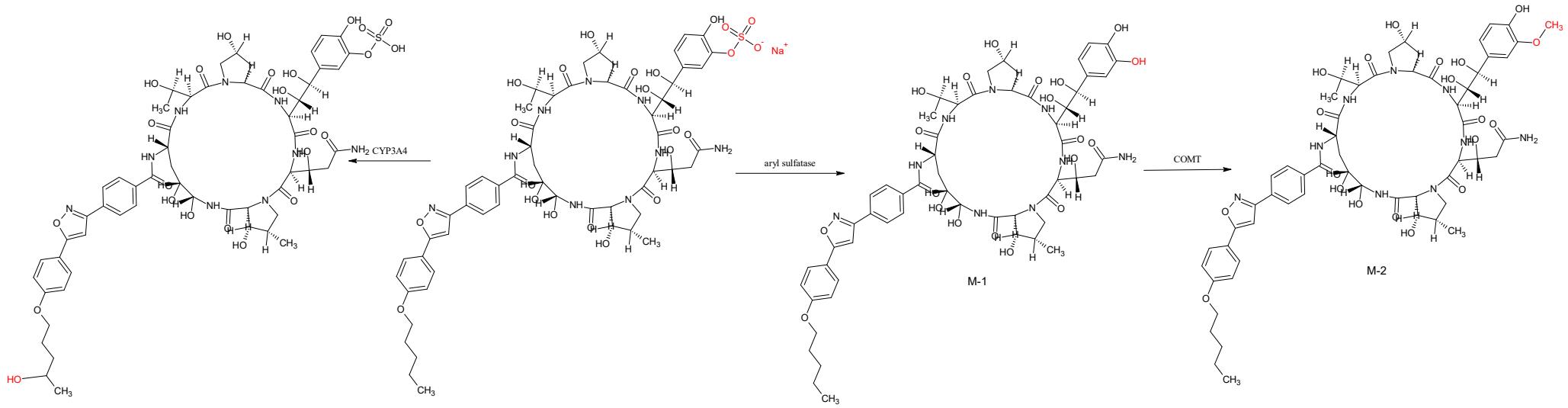
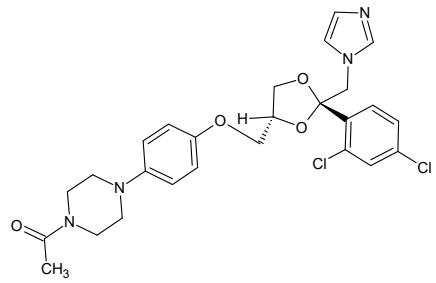


# Metabolism of selected antimycotics

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# Echinocandins: metabolism of micafungin





## Metabolism of ketoconazole

b. Proposed pathway for ketoconazole imidazole oxidation

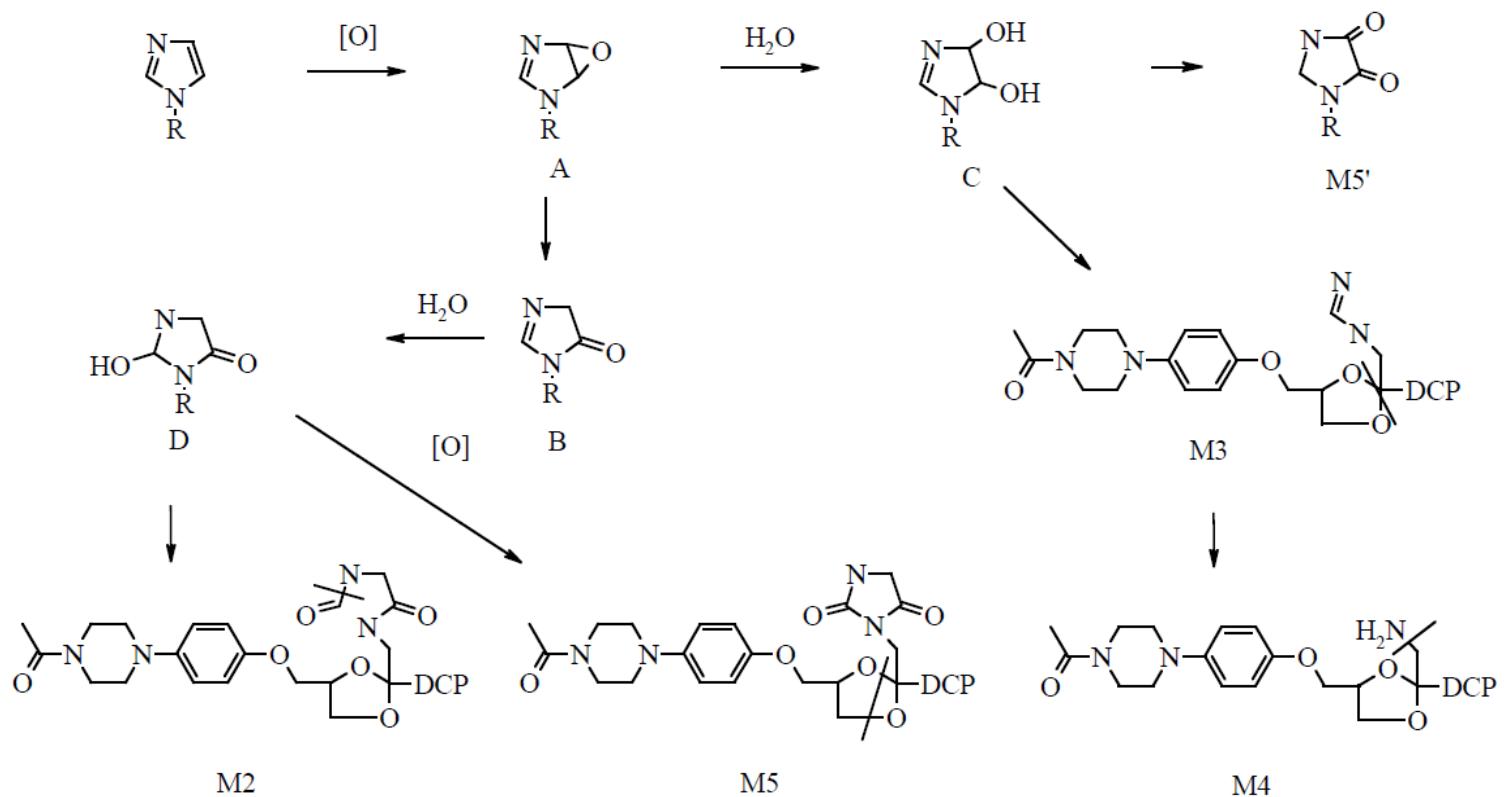


Fig. (4). Metabolic oxidation of the ketoconazole imidazole moiety.

## Metabolism of ketoconazole (continued)

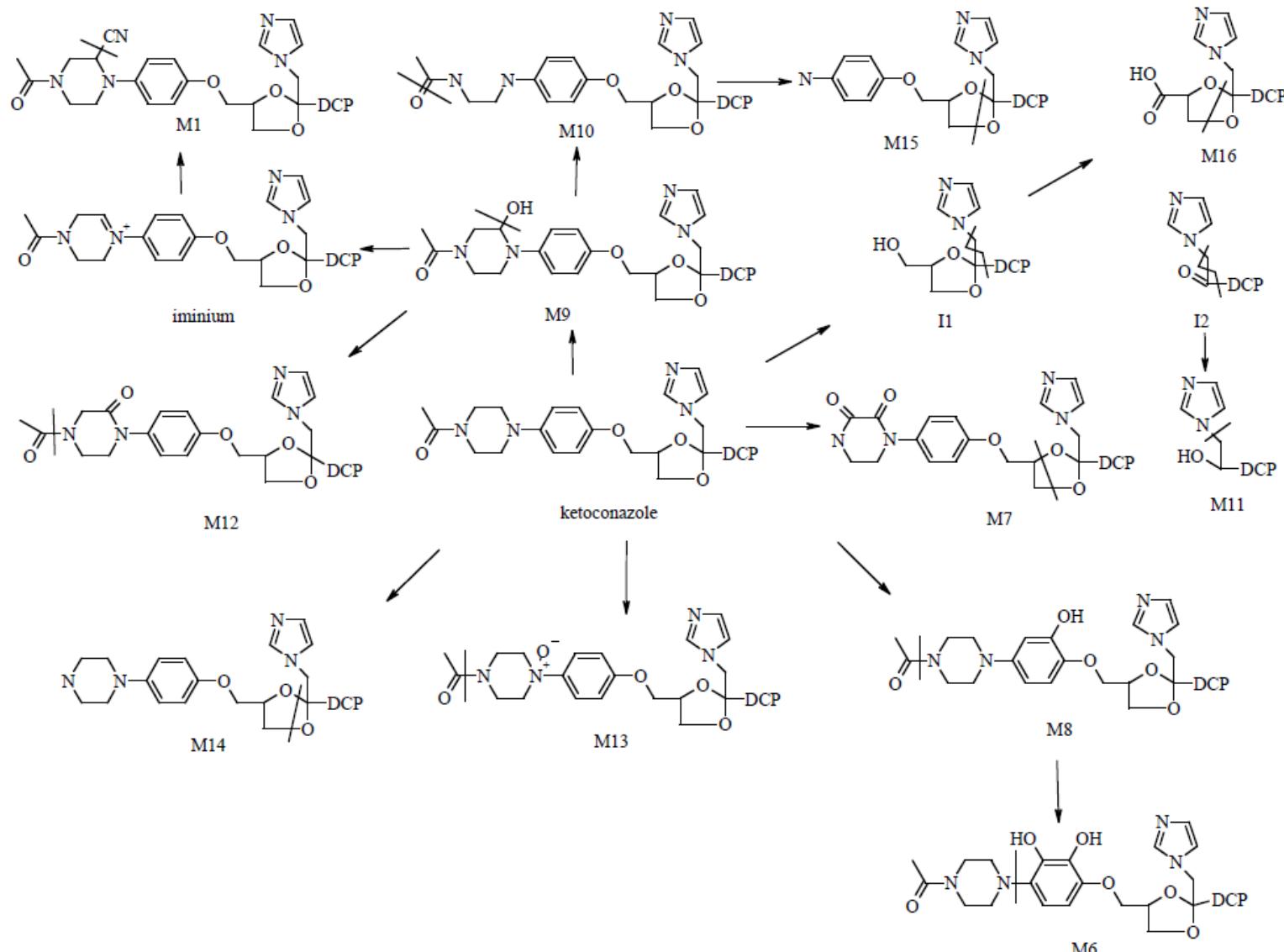
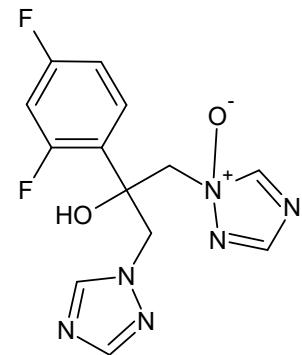


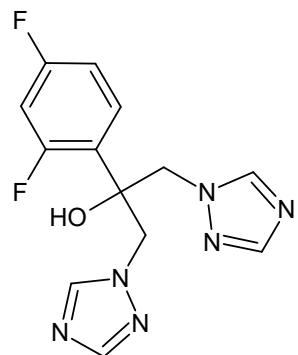
Fig. (5). Other ketoconazole microsomal metabolites.

## Metabolism of fluconazole

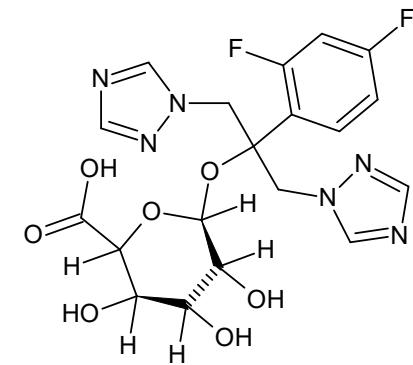


fluconazole-*N*-oxide

2.5 % in urine



fluconazole

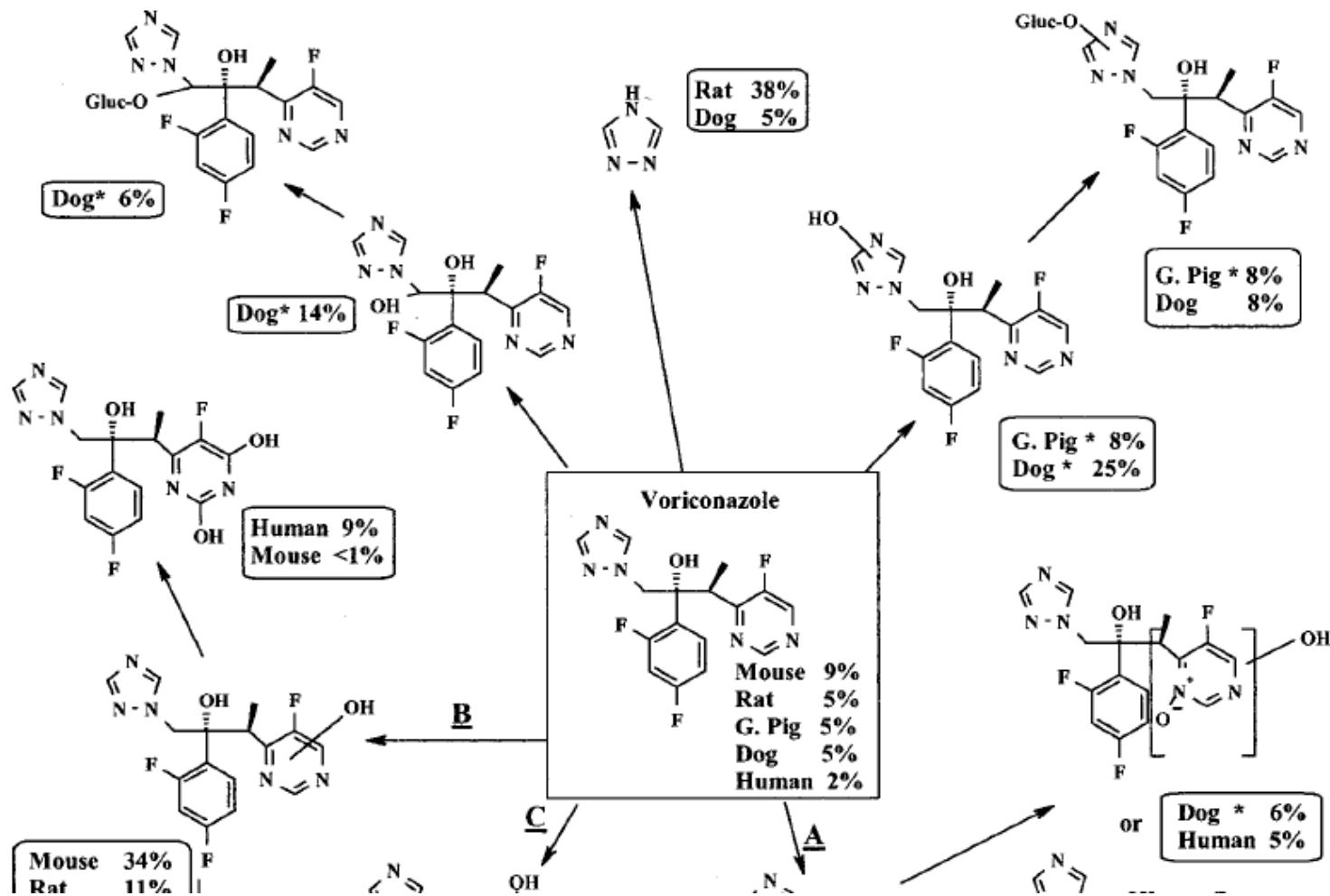


fluconazole glucuronide

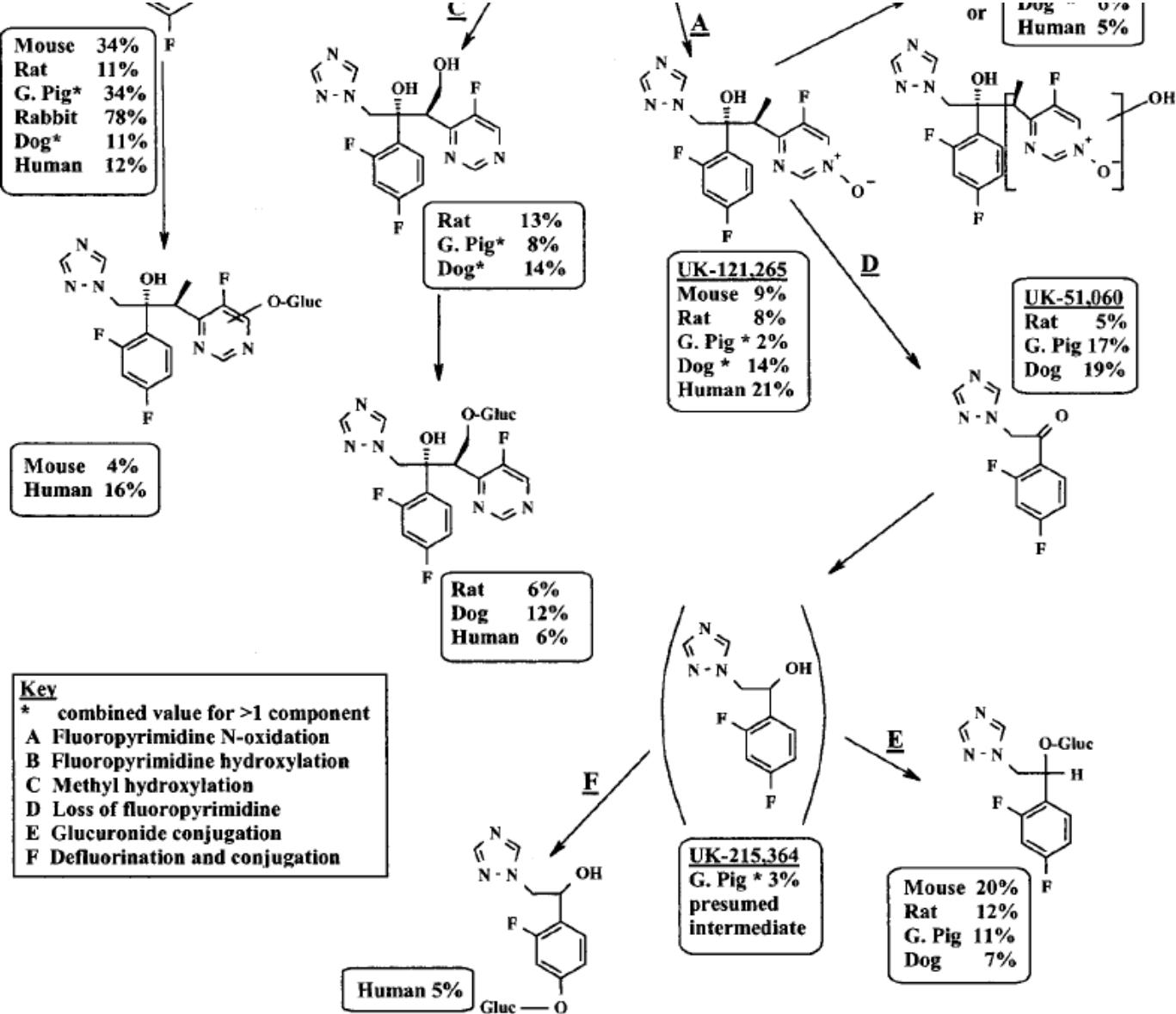
6.5 % in urine

# Metabolism of voriconazole

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# Metabolism of voriconazole continued



# Metabolism of voriconazole continued

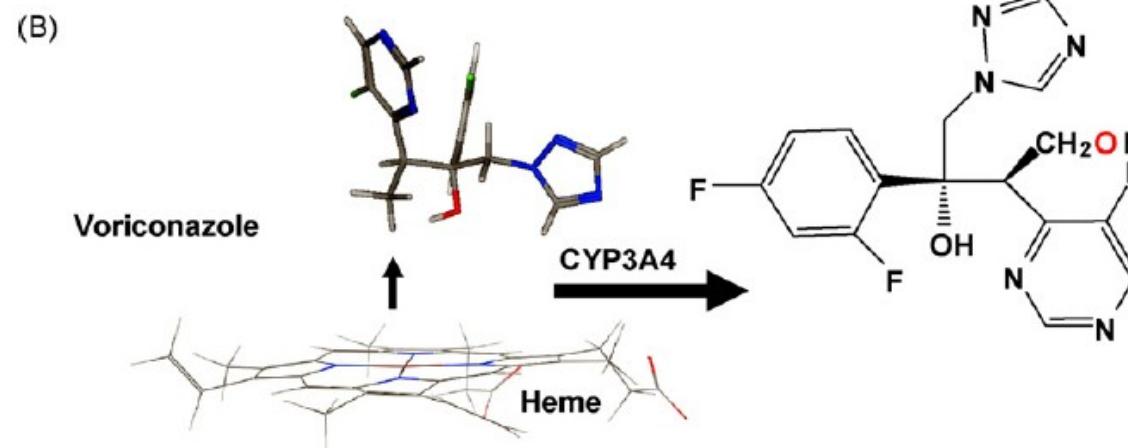
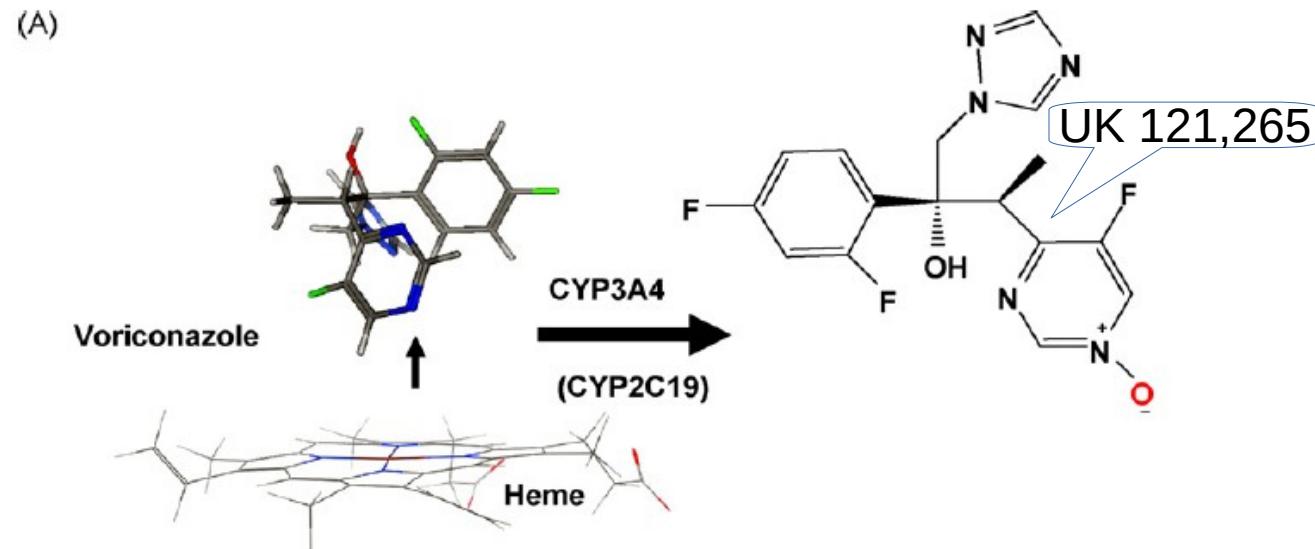
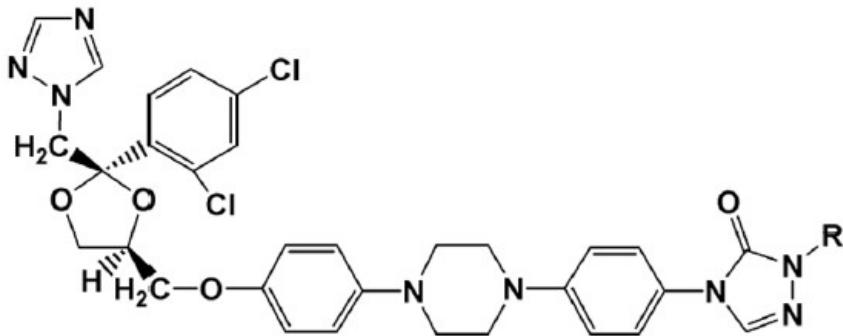


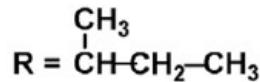
Fig. 5 – Proposed metabolic pathway of voriconazole in humans. Voriconazole adopted an orientation suitable for both N-oxidation ( $U = 21.4$ , A) and 4-hydroxylation ( $U = 24.8$ , B) for CYP3A4 (corresponding to 1W0G).

## Metabolism of itraconazole

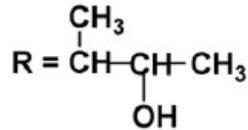


metabolites formed by CYP3A4  
itraconazol saturates CYP3A4 and thus  
inhibits metabolism of other drugs

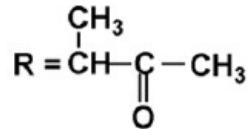
Itraconazole



Hydroxyitraconazole



Ketoitraconazole



N-Desalkylitraconazole    R = H

Figure 1.

Structures of itraconazole (ITZ) and its metabolites hydroxy-itraconazole (OH-ITZ), keto-itraconazole (keto-ITZ) and N-desalkyl-itraconazole (ND-ITZ). \* indicates a chiral center.

# Metabolism of terbinafine

