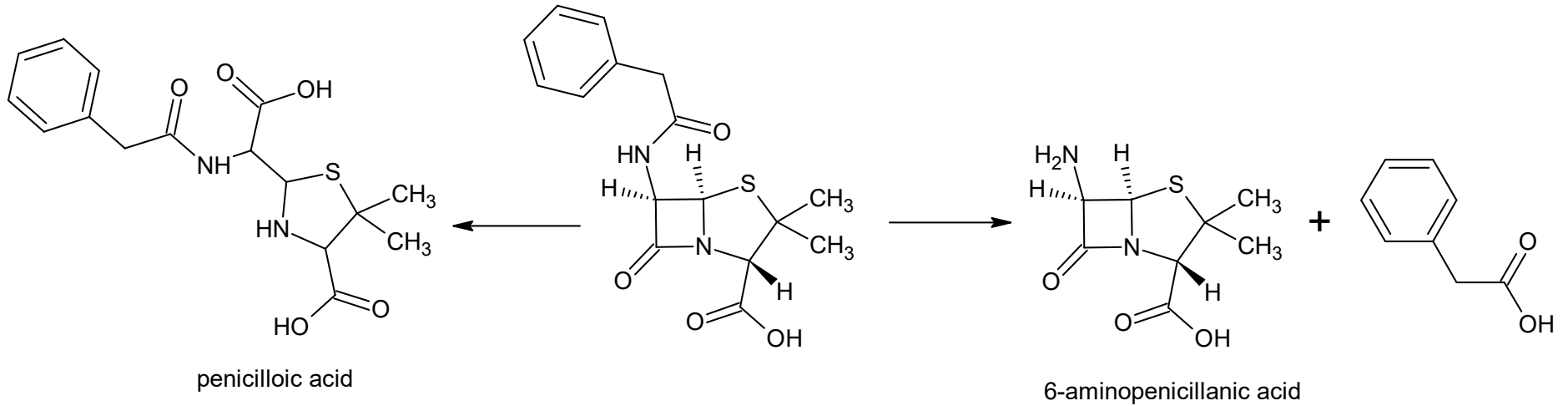


Metabolism of antibacterial agents – part 2

© Oldřich Farsa 2021

β -lactam antibiotics: metabolism of benzylpenicillin



16 – 30 % of *i.m.* dose

β-lactam antibiotics: metabolism of amoxicillin

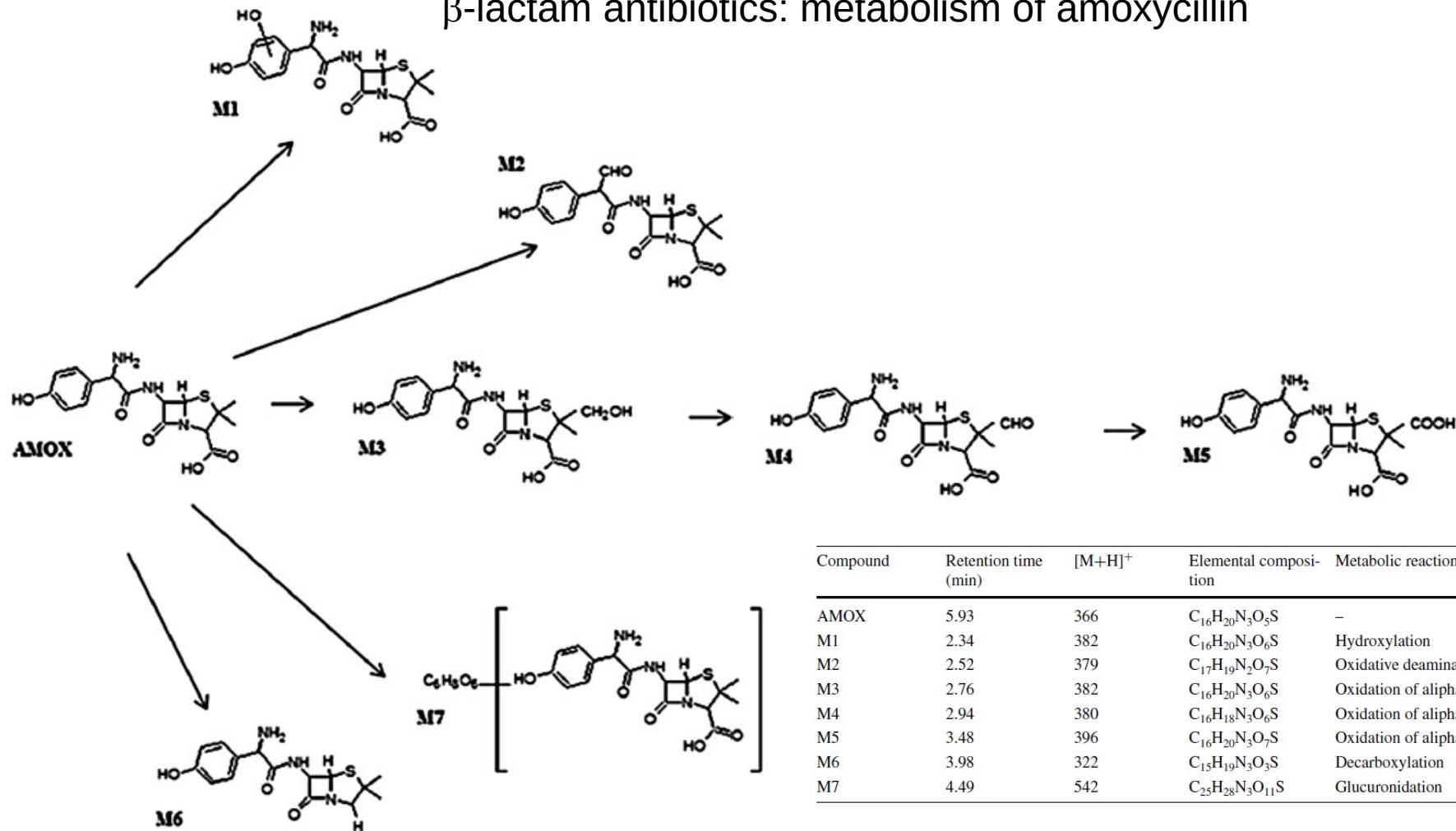
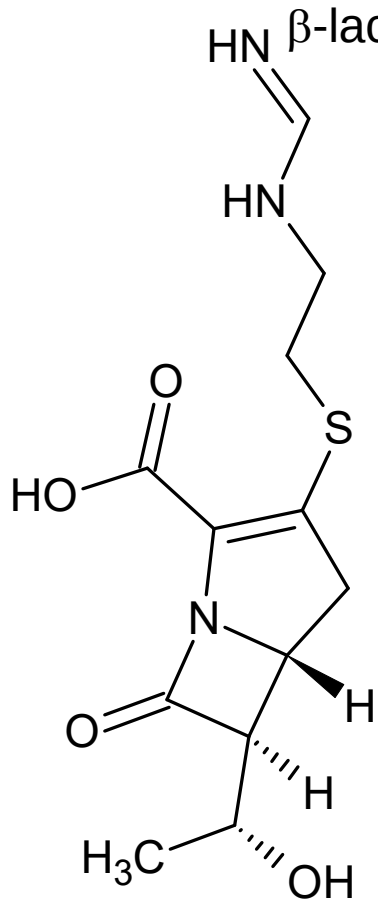


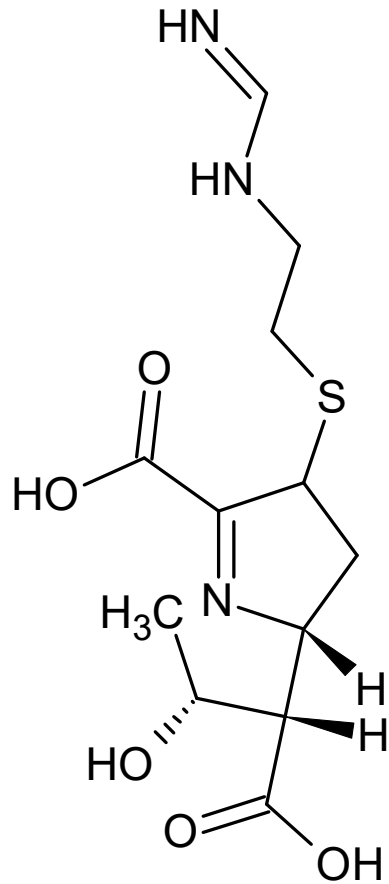
Fig. 4 Postulated metabolic pathways of amoxicillin in human liver microsomes

β -lactam antibiotics: metabolism of imipenem



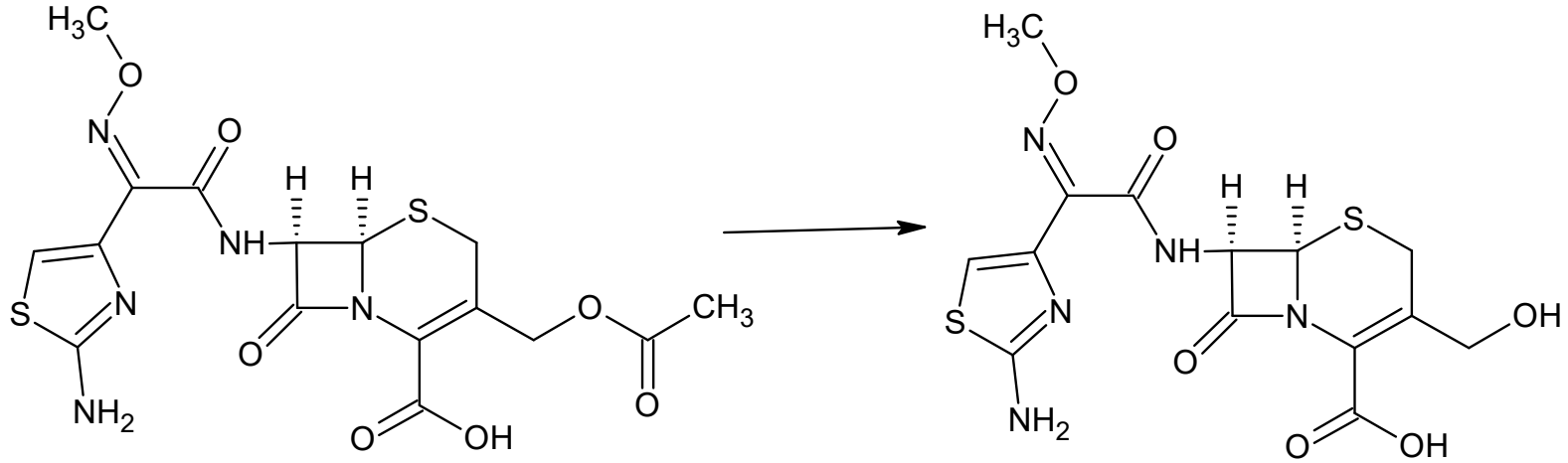
imipenem

renal dehydroptidase
→



imipenemoic acid

β -lactam antibiotics: metabolism of cefotaxime



cefotaxime

20 – 36 % in urine unchanged

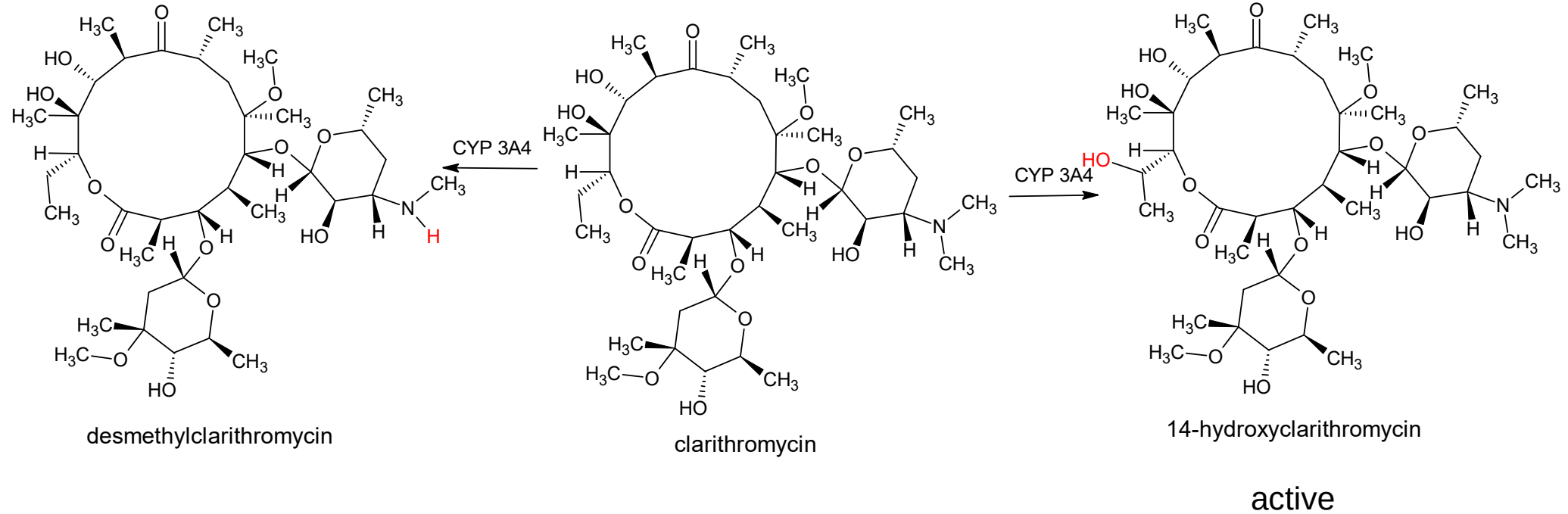
desacetyl-cefotaxime

15 – 25 % in urine active

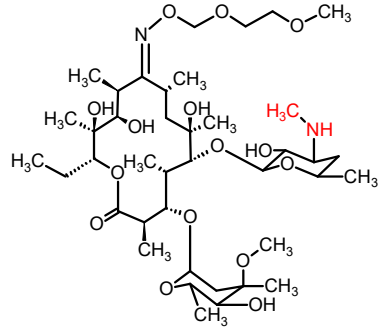
minor metabolites

20 – 25 % in urine inactive

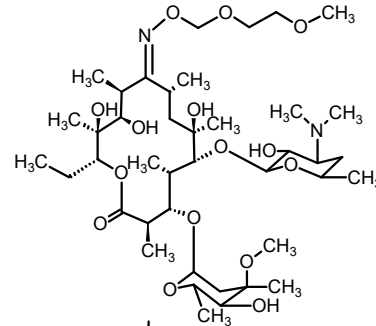
Macrolide antibiotics: metabolism of clarithromycin



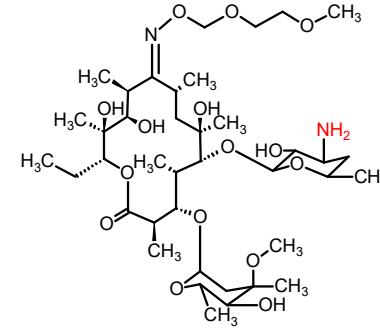
Macrolide antibiotics: metabolism of roxithromycin



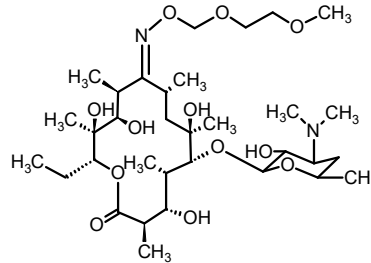
N-monodemethylroxithromycin
minor metabolite



roxithromycin

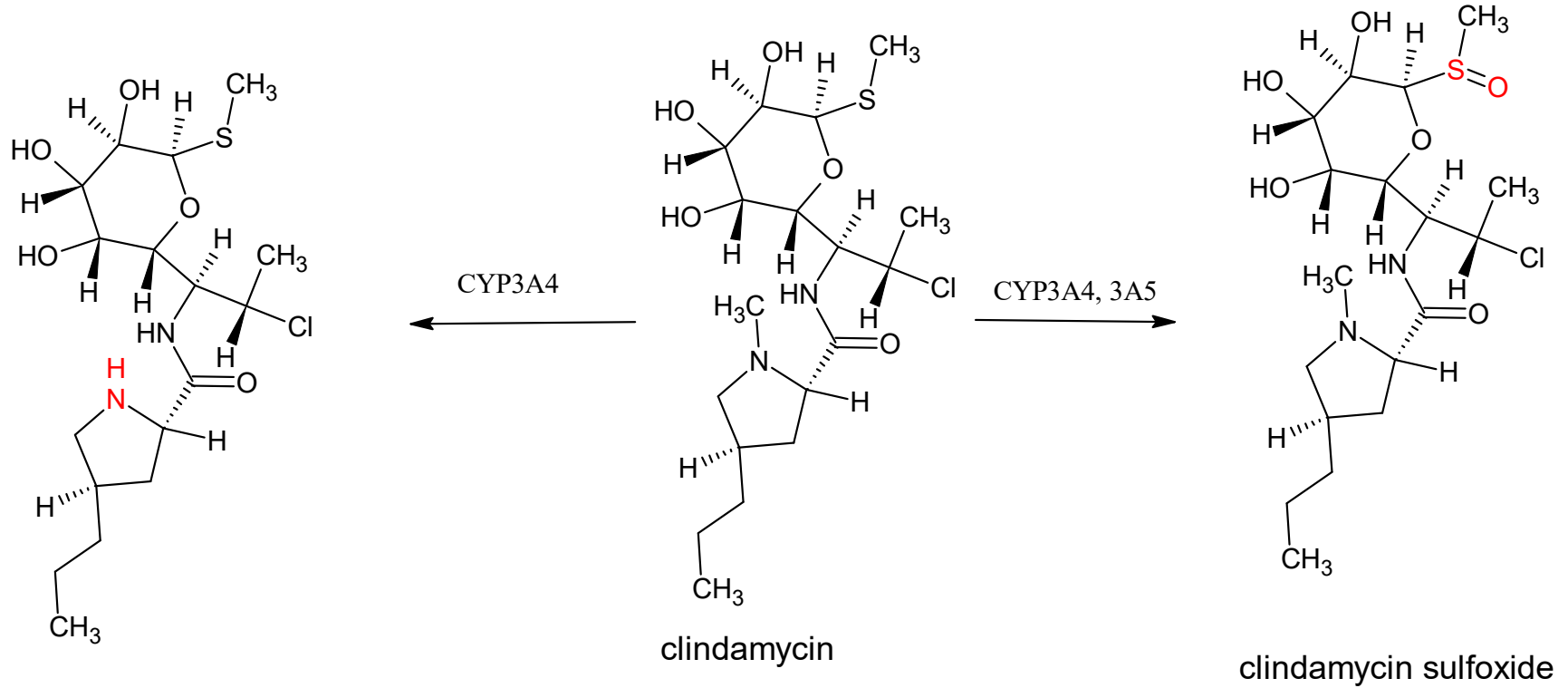


N-didemethylroxithromycin
minor metabolite



deskladinose-roxithromycin
major metabolite

Lincosamide antibiotics: metabolism of clindamycin

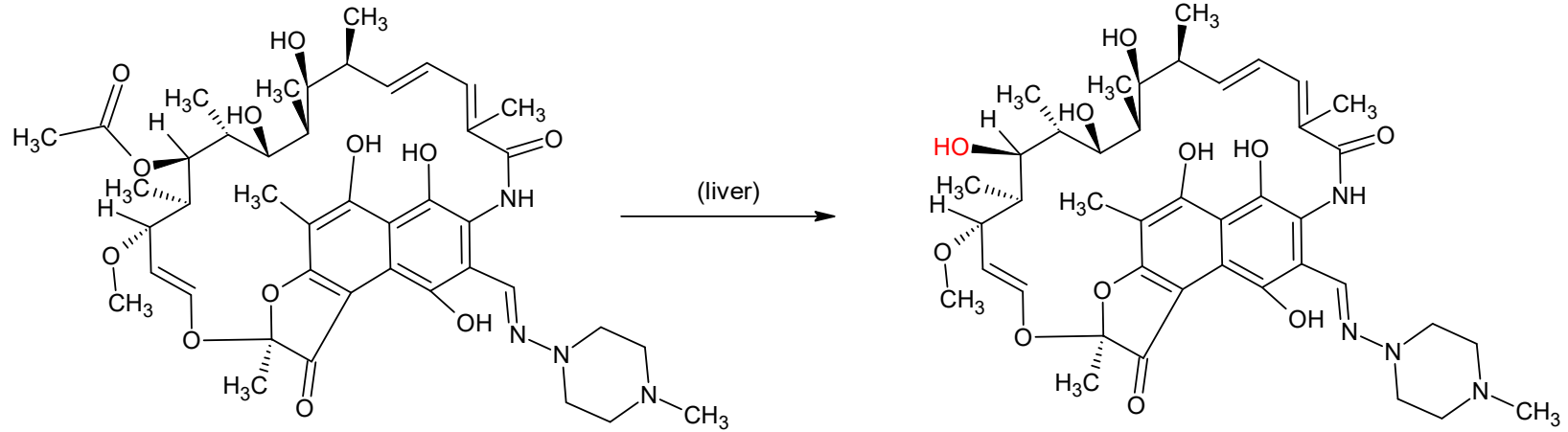


N-desmethylclindamycin

clindamycin

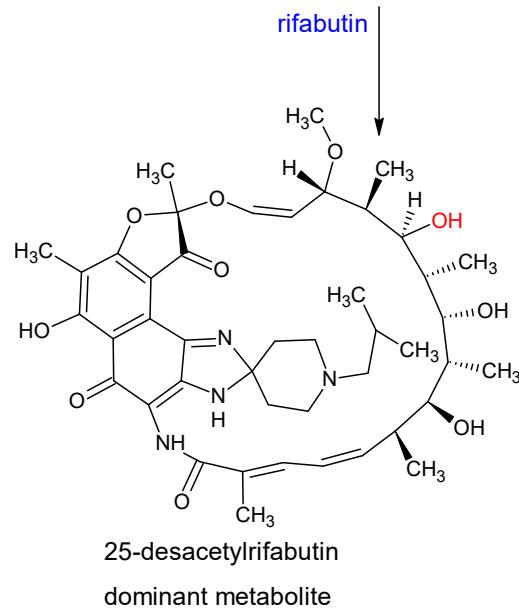
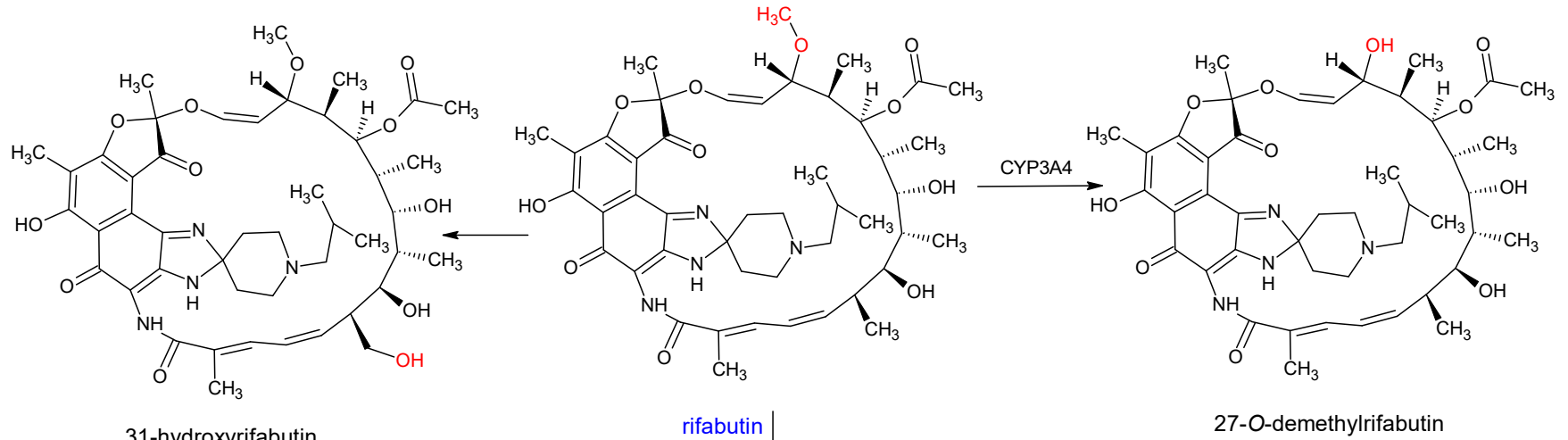
clindamycin sulfoxide

Ansamycine antibiotics: metabolism of rifampicin



< 30 % of the dose is excreted in the urine unchanged or as metabolites

Ansamycine antibiotics: metabolism of rifabutin



as active as parent drug

53 % of dose as metabolites in urine
30 % in feces

Oxazolidinones: metabolism of linezolid

