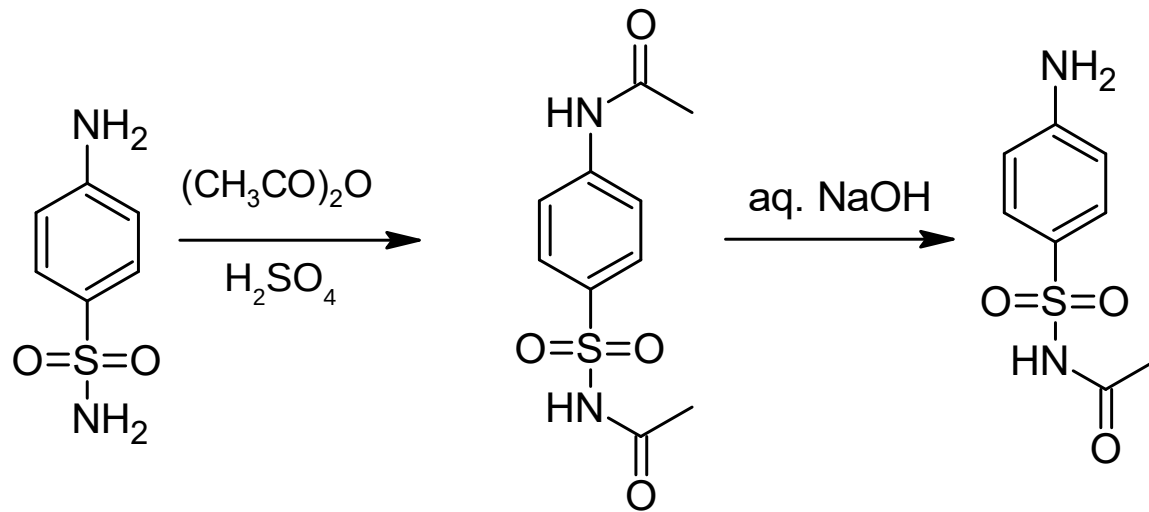


Metabolism & syntheses of selected antibacterial drugs

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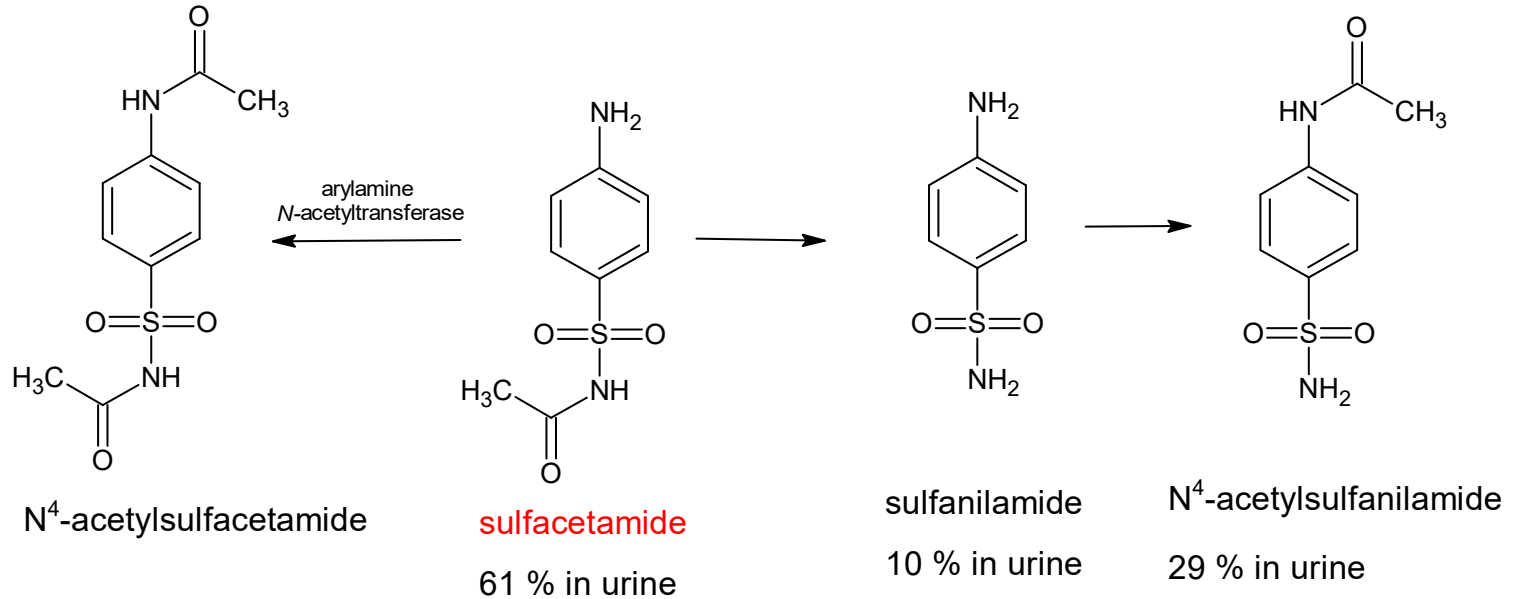
Sulfonamides

Synthesis of sulfacetamide

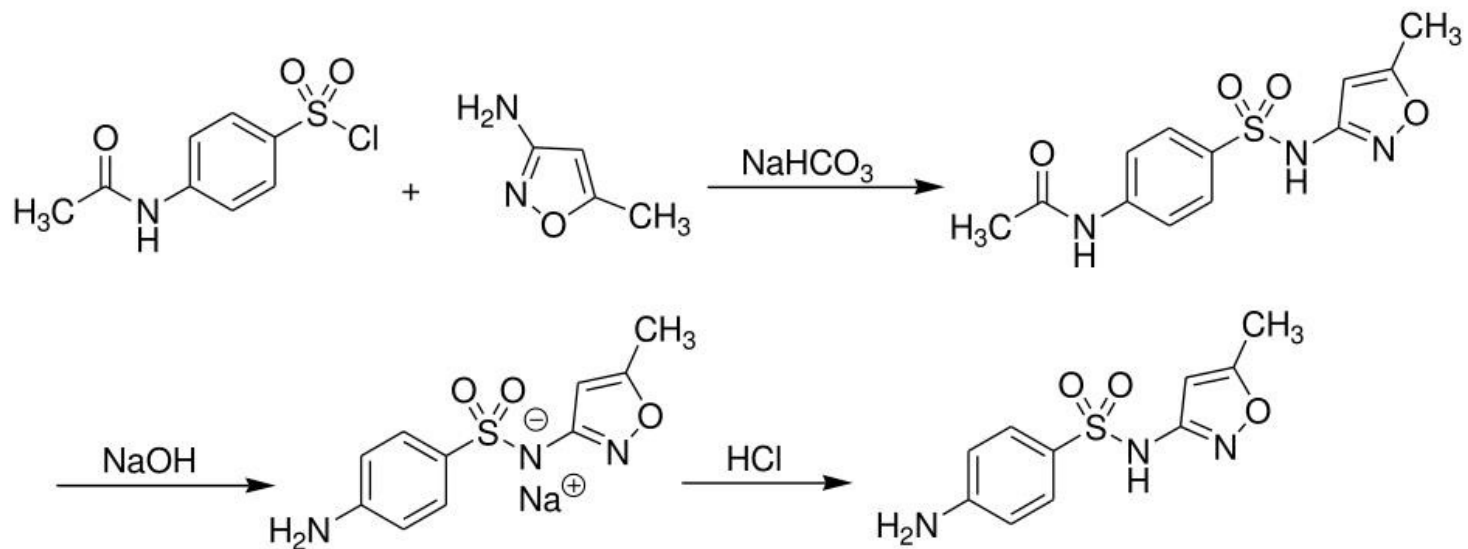


Sulfonamides

Metabolism of sulfacetamide

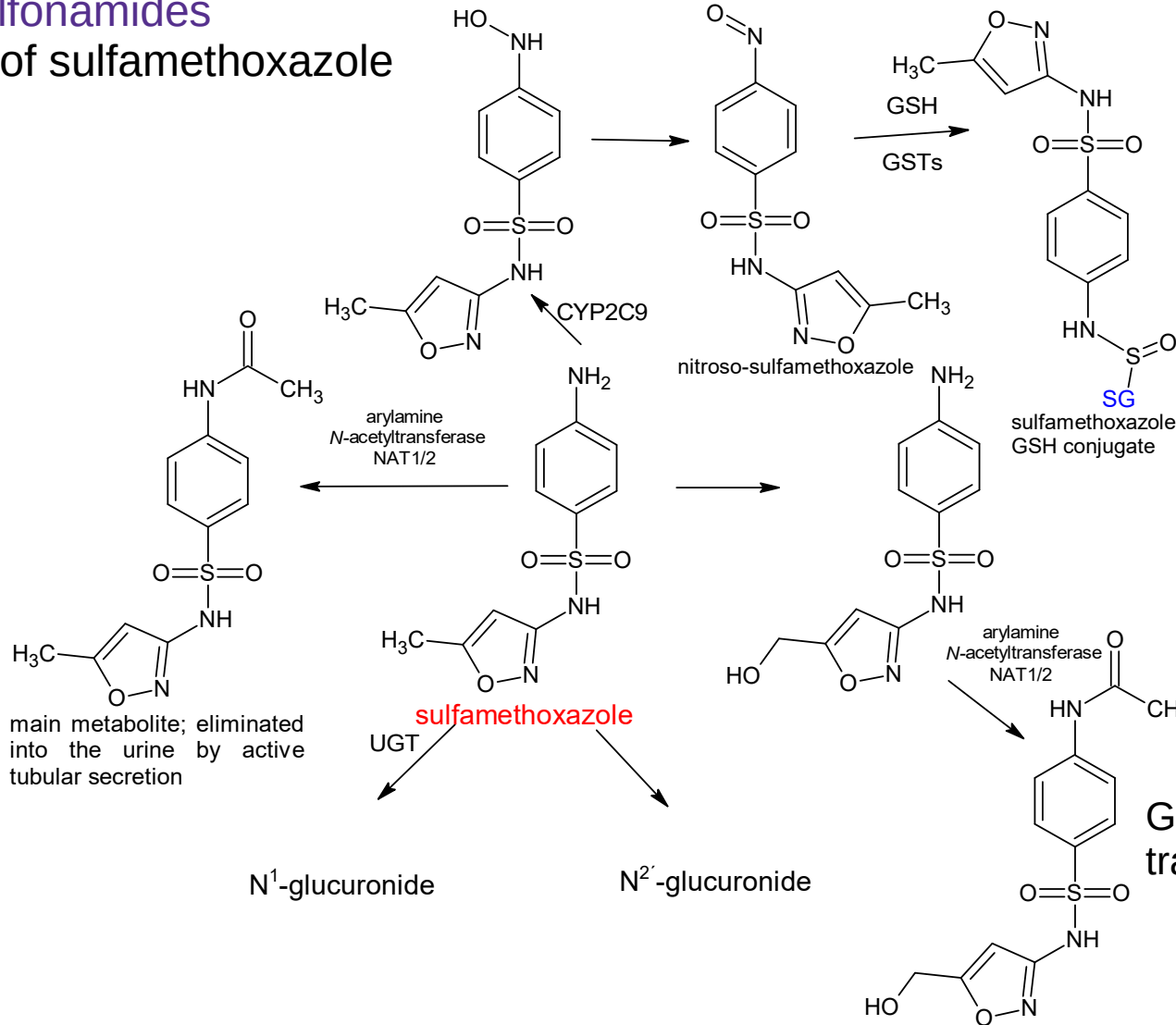


Synthesis of Sulfamethoxazole



Sulfonamides

Metabolism of sulfamethoxazole

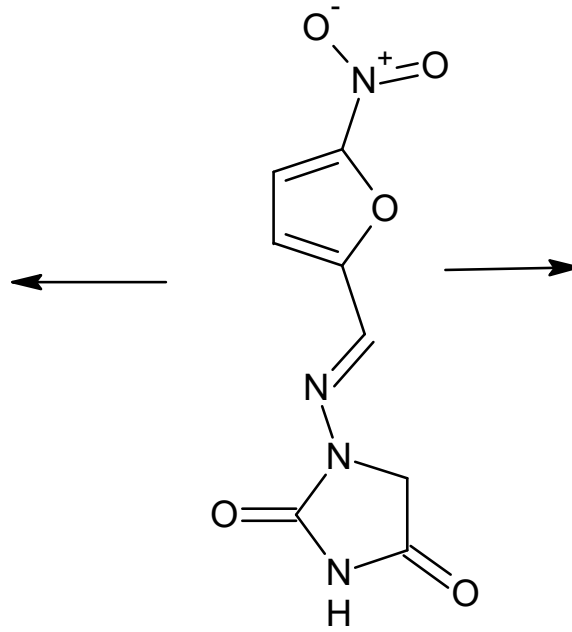


GSTs = glutathione S-transferases, EC 2.5.1.18

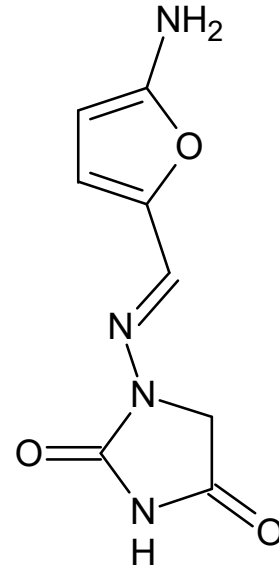
Nitrofurans

Metabolism of nitrofurantoin

other metabolites
< 0.9 % of the dose



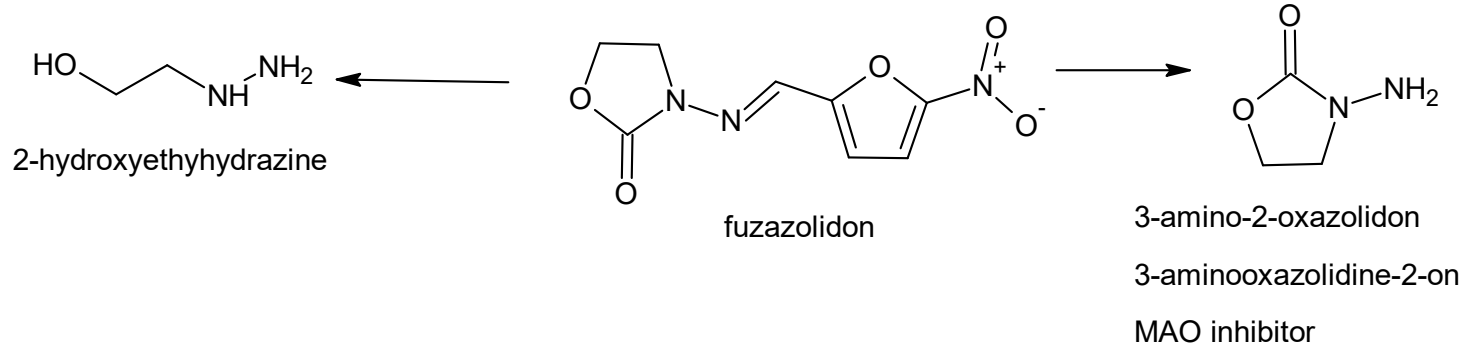
nitrofurantoin



aminofurantoin
0.8 - 1.8 % of the
dose

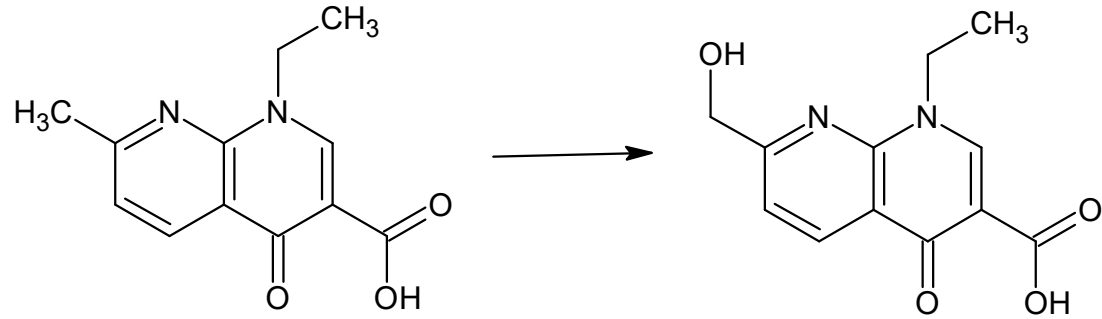
Nitrofurans

Metabolism of fuzazolidon



Quinolones

Metabolism of nalidixic acid



nalidixic acid

hydroxynalidixic acid

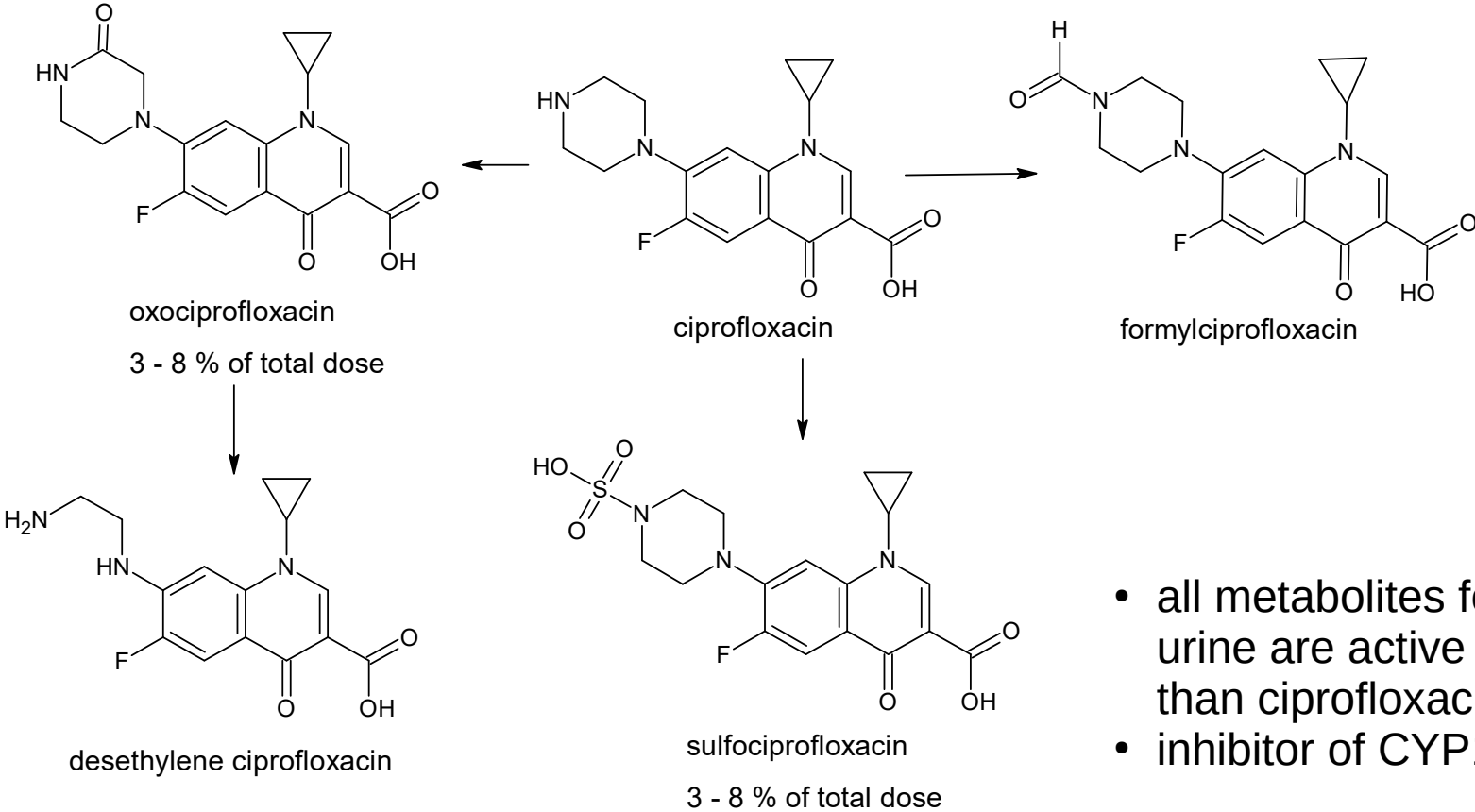
active metabolite



conjugates excreted into urine

Quinolones

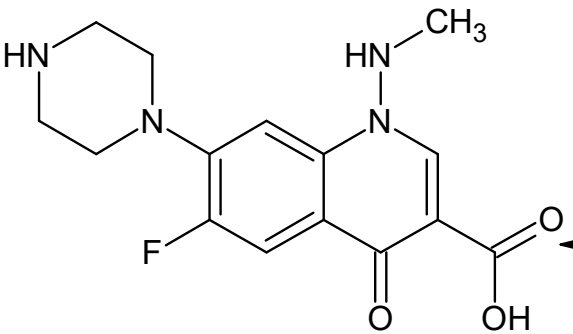
Metabolism of ciprofloxacin



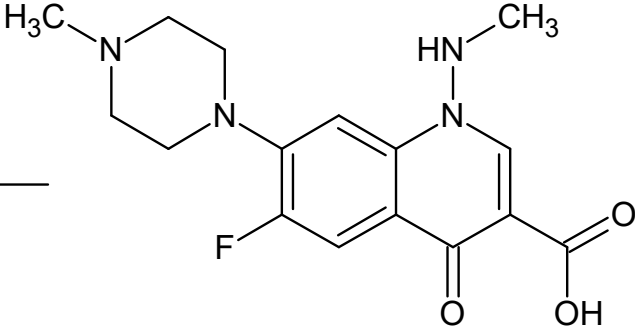
- all metabolites found in urine are active but less than ciprofloxacin
- inhibitor of CYP1A2

Quinolones

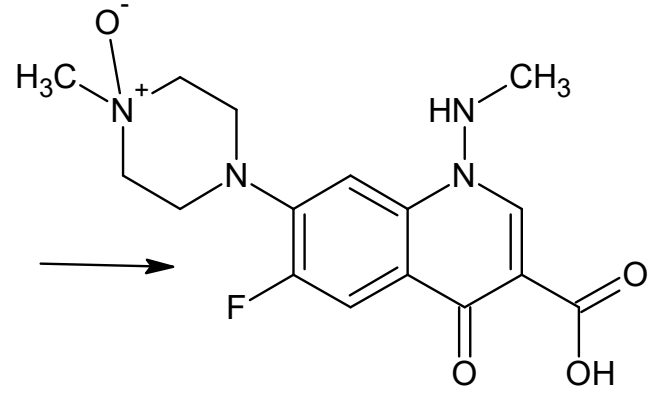
Metabolism of amifloxacin



N-desmethyamifloxacin



6-fluoro-1-(methylamino)-7-(4-methylpiperazin-1-yl)-4-oxo-1,4-dihydroquinoline-3-carboxylic acid
amifloxacin

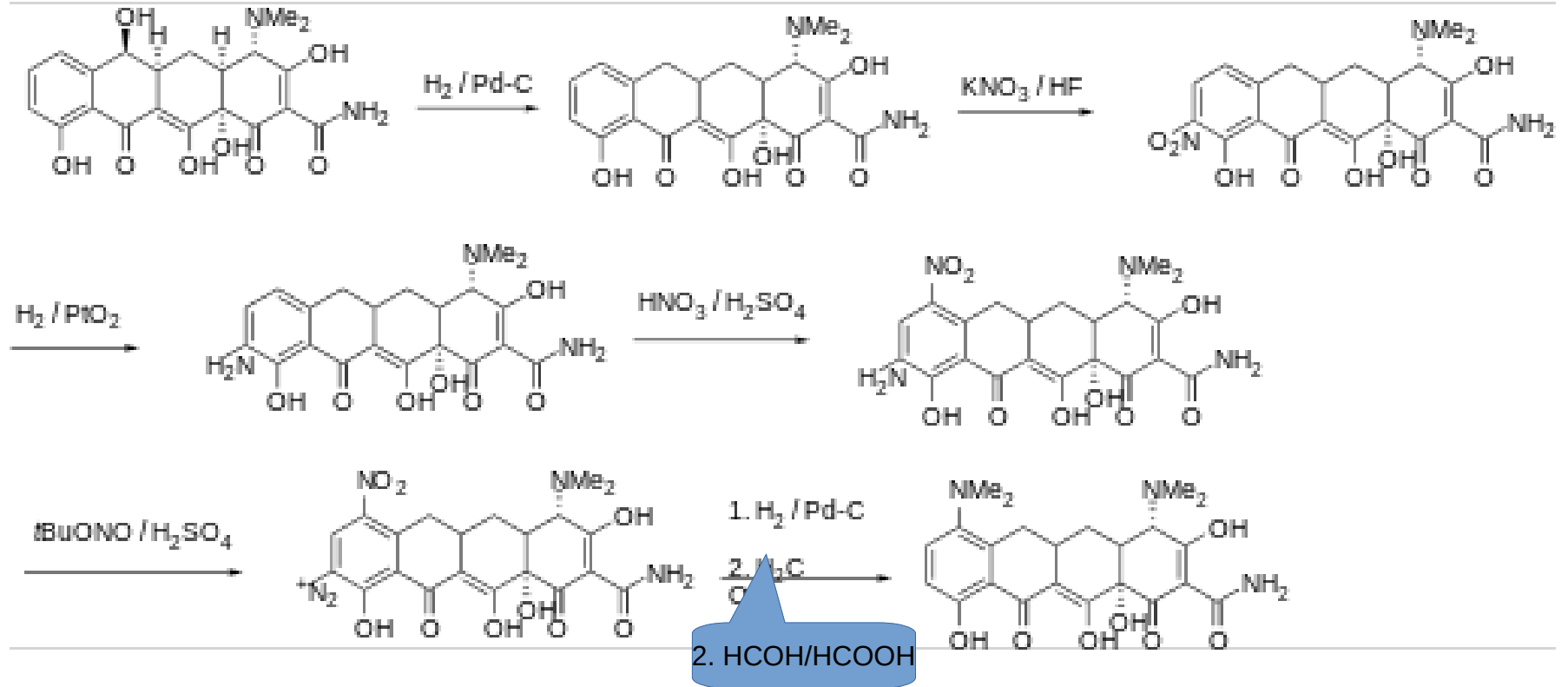


amifloxacin-*N*-oxide

both metabolites are active but less than amifloxacin

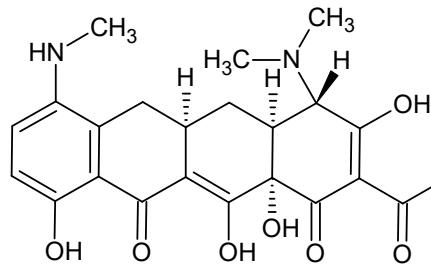
Tetracyclins

Synthesis of minocyclin

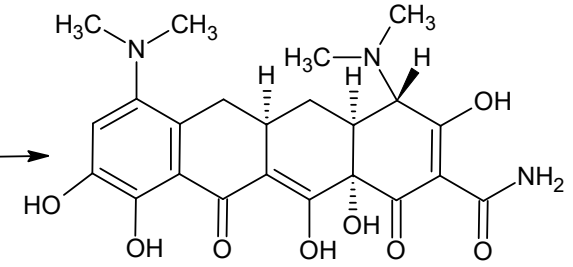
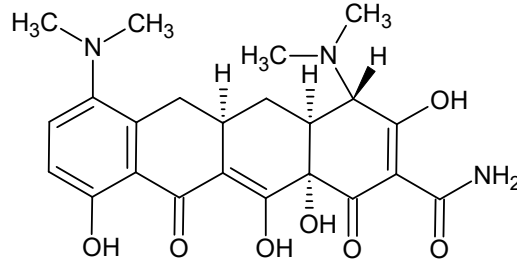


Tetracyclins

Metabolism of minocyclin

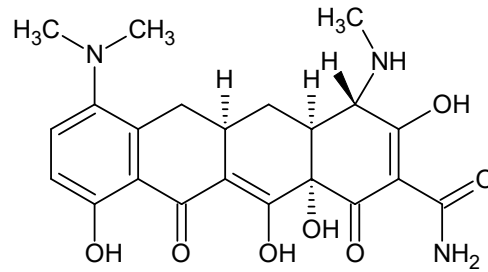


M3 metabolite



9-hydroxyminocyclin

main circulating metabolite



M7 metabolite