Clinical importance of the cytochromes P450.

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Abstract

The human cytochrome P450 (CYP) superfamily comprises 57 genes. These genes code for enzymes that can have a role in: metabolism of drugs, foreign chemicals, arachidonic acid and eicosanoids; cholesterol metabolism and bile-acid biosynthesis; steroid synthesis and metabolism; vitamin D(3) synthesis and metabolism; retinoic acid hydroxylation; and those of still unknown function. Cytochrome P450 was once believed to be mainly a hepatic drug detoxication system, but is now understood to include a myriad of enzymic reactions implicated in important life processes. Mutations in many CYP genes cause inborn errors of metabolism and contribute to many clinically relevant diseases.

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