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1.3.7 What Properties Are Shared by Drugs that Interact with P-Glycoprotein? 1.3.8 Postscript: Further X-Ray Crystallographic Studies and a Structure for the Nucleotide-Free State of P-Glycoprotein; 1.4 Summary; References; 2 Biochemistry, Physiology, and Pharmacology of Nucleoside and Nucleobase Transporters; 2.1 Nucleoside and Nucleobase Transporters; 2.1.1 Equilibrative Nucleoside Transporters; 2.1.2 Concentrative Nucleoside Transporters; 2.2 ENT and CNT Tissue Distribution, Regulation, and Physiological Roles; 2.2.1 ENT Tissue Distribution and Regulation 2.2.2 CNT Tissue Distribution and Regulation 2.2.2.1 CNTs in Absorptive Epithelia; 2.2.2.2 CNTs in Liver Parenchymal Cells; 2.2.2.3 CNTs in Immune System Cells; 2.2.2.4 CNTs in CNS; 2.2.2.5 CNTs in Other Specialized Tissues; 2.2.3 NTs as "Transceptors"; 2.3 Nucleoside- and Nucleobase-Derived Drug Transport into Cells; 2.3.1 Transport of Anticancer Drugs; 2.3.2 Transport of Antiviral Drugs; 2.4 Drug Transport and Responsiveness to Treatment; 2.4.1 Analysis of the Role of NTs in Sensitivity to Nucleoside Anticancer Drugs in Cultured Cell Models 2.4.2 Studies Linking NT Function to Drug Sensitivity and Clinical Outcome in Cancer Patients 2.5 Future Perspectives; References; 3 Organic Anion Transporting Polypeptides (Oatps/OATPs); 3.1 Introduction; 3.2 Nomenclature and Classification; 3.3 Tissue Distribution, Structure, and Functions; 3.4 Substrate Spectrum; 3.5 Members of the Rodent Oatp Family; 3.5.1 Oatp1a1; 3.5.2 Oatp1a3-v1/v2; 3.5.3 Oatp1a4; 3.5.4 Oatp1a5; 3.5.5 Oatp1a6; 3.5.6 Oatp1b2; 3.5.7 Oatp1c1; 3.5.8 Oatp2a1; 3.5.9 Oatp2b1; 3.5.10 Oatp3a1; 3.5.11 Oatp4a1; 3.5.12 Oatp4c1; 3.5.13 Oatp6b1/Oatp6c1; 3.5.14 PGT-2 3.5.15 TST-1 and TST-2

Sommario/riassunto

This reference handbook is the first to provide a comprehensive overview, systematically characterizing all known transporters involved in drug elimination and resistance. Combining recent knowledge on all known classes of drug carriers, from microbes to man, it begins with a look at human and mammalian transporters. This is followed by microbial, fungal and parasitic transporters with special attention given to transport across those physiological barriers relevant for drug uptake, distribution and excretion. As a result, this key resource lays the foundations for understanding and investi
