PYRIMIDINE METABOLISM PRPP Pentose phosphate pathway **600**119 Dihydro-_**ு**UDP-glucose (extracellular) K17828... 3.6.1.8 Orotidine-5P orofate N-Carbamoyl P9301_05951 K00226 Pseudouridine-5'-phosphate 2',3'-Cyclic UMP L-aspartate 3.6.1.8 **├─⊙** <u>Прррр</u> pyrD 3'-UMF UTP K01518 K01511... O Pseudouridine (extracellular) P9301_13921 K01119... K01510... Carbamoyl-P UMP **▼** UTP K13800... K17722... rpoZ... K00757.. β-Alanine metabolism **FO**: K01240 **▲** UDP 3-Ureidoβ-Alanine Uridine Dihydrouracil K01510... carA... propionate upp... 3.6.1.39 dcd Arginine Malonate Barbiturate -Glutamine K01513... (extracellular) biosynthesis 3.6.1.8 CTP | 1.1799.4|**--▶°0*4**pyrG K01489 3-Oxo-3-ureido-K01513... propanoate P9301 1070 **Ò**°Urea K01510... codA K21057... Ureidoacrylate ₩ RNA K13800... K00756... Alanine, aspartate and ytosine K09020 glutamate metabolism rpoZ... K10213 cmk CTP Cytidine Carbamate Malonate-K06966 semialdehyde **PO** K01119... K01119.. **O**4 3-Hydroxy-(Z)-3-Peroxy-aminoacrylate (Z)-3-Ureidoacrylate-Aminoacrylate 3'-CMP 2',3'-Cyclic CMP propionate K00527 K21636 hm5dCDP hm5dCTP peracid K19797 K00527 K21636 hm5dCMP K18942 K13800.. dCMP Deoxycytidine cmk dCTP ၨႚၯၴၫ dCDP hm5C in DNA K16904 surE K16904 K08722 K01489 K09887 K00756 dcd K01493 K01520 dnaN... K00757 Deoxyuridine K03783... K00857 K00758 3.6.1.39 dUMP O Urea dUTP surE 5-Methylbarbiturate K08722 | 1.1799.4|**--▶℃** K00560.. nrdJ thy1 C(2376 3-Oxo-3-ureido-isobutyrate Methylmalonate 5-Methylcytosine surE °Ø¹UDP K08722 K17722... K08728 Valine, leucine and dnaN... K00857 DNA°**©⊶** isoleucine metabolism K01510.. K00758.. K00207 Thymidine **♦** dTMP (R)-3-Amino-isobutyrate (R)-Dihydro-(R)-3-Ureido-Thymine K01510.. isobutyrate thymine 3.6.1.39 2-Deoxy-D-nbose-1P K01513... 00240 9/28/17 (c) Kanehisa Laboratories