PEPTIDOGLYCAN BIOSYNTHESIS Aminosugar metabolism UDP-N-acetylglucosamine UDP-N-acetylglucosamine enolpyruvate °🌣°UDP-N-acetylmuramate JDP-MurNAc-L-Ala ' UDP-MurNAc-L-Ala-D-Glu OD-Alanine K05362 D-Alanine metabolism UDP-MurNAc-L-Ala-y-D-Glu-UDP-MurNAc-L-Alac meso-2,6- diaminopimelate y-D-Glu-L-Lys r. D-Ala-D-Ala Undecaprenol 🗭 K00887 UDP-MurNAc-L-Ala-J y-D-Glu-L-Lys-D-Ala-D-Ala Undecaprenyl-P Pf**©4** UM₽**©⁴ ₽**©UMP ♥ Und-PP-MurNAc-L-Ala°♥%-D-Glu-meso-2,6-diaminopimeloylD-Ala-D-Ala Und-PP-MurNAc-L-Ala- y-D-Glu-L-Lys-D-Ala-D-Ala UDP-GlcNAc Undecapreny-Pf UDP-GlcNAd Und-PP-MurNAc-Und-PP-MurNAc-(GlcNAc)-(GlcNAc)- L-Ala-y-D-Glu-ce L-Lys-D-Ala-D-Ala 2,6-diaminopimeloyl-D-Ala-D-Ala Und-PP-MurNAc-(GlcNAc)- + L-Ala-D-isoglutaminyl L-Lys-D-Ala-D-Ala K11693 K05363 Und-PP-MurNAc-(GlcNAc)-Und-PP-MurNAc-(GlcNAc)-L-Ala-D-isoglutaminyl-L-Lys-(Gly)-D-Ala-D-Ala L-Ala-y-D-Glu-L-Lys-(L-Ala)-D-Ala-D-Ala K12554 Und-PP-MurNAc-(GlcNAc)- L-Ala-D-isoglutaminyl-L-Lysc (Gly)3-D-Ala-D-Ala Und-PP-MurNAc-(GlcNAc)-L-Ala-y-D-Glu-L-Lys-(L-Ala)2-D-Ala-D-Ala flippase Und-PP-MurNAc-(GlcNAc)-L-Ala-D-isoglutaminyl-L-Lys- 65 (Gfy)5-D-Ala-D-Ala K04478 K03814 K05364 K07258 K07258 K07258 D-Alanine 🗪 D-Alanine 🗪 📭 D-Alanine Peptidoglycan Peptidoglycan Peptidoglycan 00550 5/28/15 (c) Kanehisa Laboratories