Metabolic Flux Dynamics EX_biomass_e EX_cys_L_e EX_ile_L_e $0 \times 10^{+0}$ 1.5×10^{-1} $7.5 \times 10^{+0}$ 1×10^{-1} $-5 \times 10^{+0}$ $5 \times 10^{+0}$ 5×10^{-2} $2.5 \times 10^{+0}$ 60 60 20 40 20 40 20 40 60 $0 \times 10^{+0}$ $0 \times 10^{+0}$ $-5 \times 10^{+0}$ $-1 \times 10^{+1}$ $-1.5 \times 10^{+1}$ $-2 \times 10^{+1}$ Scenario EX_leu_L_e EX_pro_L_e EX_trp_L_e $\begin{array}{c}
0 \times 10^{+0} \\
-5 \times 10^{+0} \\
-1 \times 10^{+1}
\end{array}$ $-1.5 \times 10^{+1}$ $0 \times 10^{+0}$ - - Ablated $-1 \times 10^{+0} - 2 \times 10^{+0} - 3 \times 10^{+0} -$ Unified Condition — NoDrug 20 40 60 20 40 60 Ò 20 40 60 Therapy EX_val_L_e sink_pheme_c $0 \times 10^{+0}$ 1.5×10^{-2} $-5 \times 10^{+0} - 1 \times 10^{+1} - 1.5 \times 10^{+1} = -1.5 \times 10^{-1} = -1.5 \times 10^$ 1×10^{-2} 5×10^{-3} 0 20 40 60 20 40 60 Time (h)