Transcriptional control Metabolic control Combined control Condition a = reference condition $\Phi_{\rm b}\!=\Phi_{\rm a}$ Condition b = increase enzyme E $\Phi_{b} > \Phi_{a}$ $\Phi_b > \Phi_a$ Condition c = increase substrate S $\Phi_c = \Phi_a$ $\Phi_{\rm c} > \Phi_{\rm a}$ Condition d = increase S and E S $\Phi_{\mathsf{d}} = \Phi_{\mathsf{b}}$ $\Phi_{\rm d}$ = $\Phi_{\rm c}$ $\Phi_{\rm d}\!>\Phi_{\rm b}$