

**S14 Fig. The rate of gain-of-function mutations has little impact on the dynamics of pleiotropy evolution.** We varied the relative rate of gain-of-function mutations to loss-of-function mutations, $ν$. Heatmaps show average trait values among the global population of cells (across all groups) at steady state in our model. Results are shown for three gain-of-function rates (increasing from top to bottom). The gain-of-function ratio had a marginal effect on the evolution of pleiotropy, favouring slightly higher rates when $ν$ is higher. The dotted line marks the boundary between pleiotropy having no effect (control case) and pleiotropy having an effect on the outcome of mutations. Parameters: $s^{c}=s^{g}=0.95$; $K=200$; $μ=0.0001$; $K=200$. The code required to generate this Figure can be found at https://github.com/euler-mab/pleiotropy and https://zenodo.org/record/6367788#.YjSBVurP2Uk.