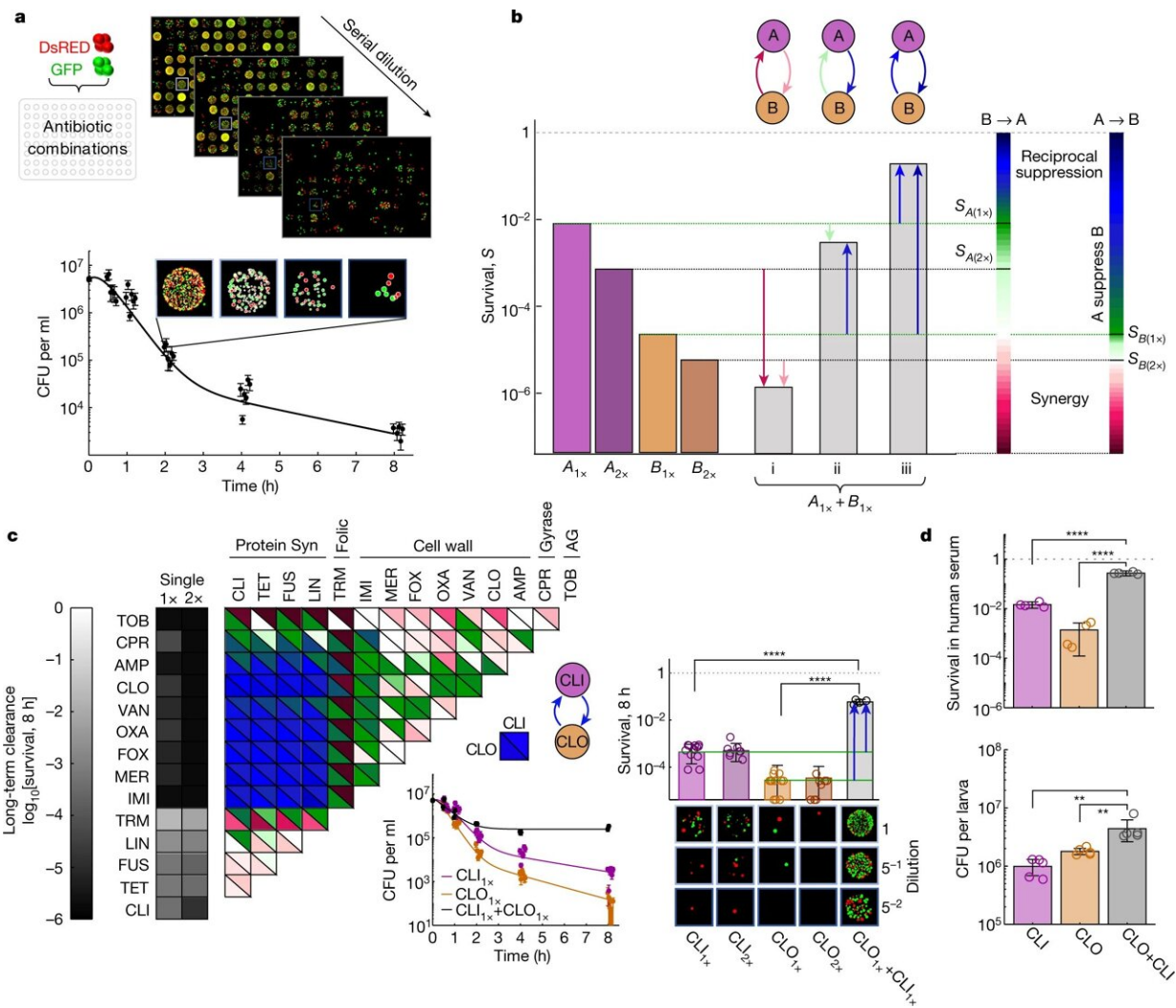


# Researchers discover antibiotic combinations that reduce *Staphylococcus aureus* clearance

November 14 2022



Systematic quantification of pairwise drug interactions reveals emergent reciprocal suppression in long-term population clearance. **a**, Cell viability over time after antibiotic treatment was measured by high-throughput microplating

and automated image analysis of a mixed DsRed- and GFP-tagged *S. aureus* strain. Example data are shown for treatment with CLI ( $n = 6$  wells; fivefold serial dilution microplate images are shown for one replicate at one time point).

**b**, Schematic of directional interactions. Contrasting survival after a combined treatment with two drugs, A and B, at a fixed cidal concentration (Supplementary Table 1, gray bars,  $S_{A+B}$ ); the survival under drugs A and B alone at the same or double the concentration ( $S_{A(1\times)}$ ,  $S_{A(2\times)}$  (purple bars);  $S_{B(1\times)}$ ,  $S_{B(2\times)}$  (orange bars)) defines two-directional interaction scores for the effect of drug B on drug A ( $B \rightarrow A$ , left color scale) and the effect of A on B ( $A \rightarrow B$ , right color scale). The combined effect could be synergistic ( $S_{A+B}$

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