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## CcpA Ensures Optimal Metabolic Fitness of *Streptococcus pneumoniae*

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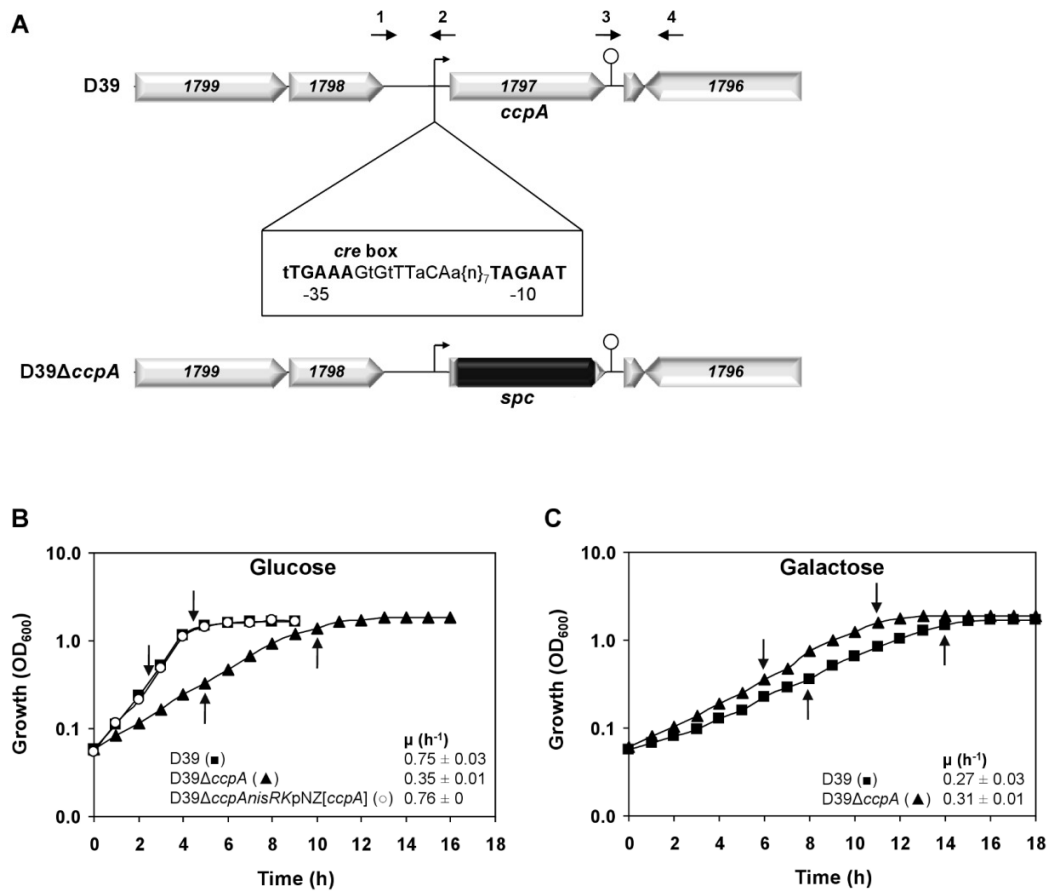
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**Figure S1.**

**Growth profiles of D39 wild-type and the isogenic *ccpA* mutant on Glc and Gal.** (A) Schematic overview of the *ccpA* gene and its flanking genes and the genetic replacement of the *ccpA* gene with a spectinomycin marker in strain D39. Hooked arrow, putative promoter; lollipop, putative terminator; black area, *ccpA* gene replaced with a spectinomycin cassette; numbers inside the genes, D39 SPD numbers; arrows and numbers above the figure indicate primers used to construct the D39 $\Delta$ *ccpA* mutant; zoomed area (inset), putative *cre* box, -35 and -10 promoter regions; the number of bp spacing these regions are subscripted after {n}. (B and C) Growth of strains D39 (■), D39 $\Delta$ *ccpA* (▲) and D39 $\Delta$ *ccpAnisRKpNZ[ccpA]* (○) in CDM containing 1% Glc (B) or 1% Gal (C) at 37°C in rubber-stoppered static bottles without pH control (initial pH 6.5); growth curves as in Figure 1, except that logarithmic scale was used for the y-axis. The growth of the complemented strain was performed without nisin in the medium. Optical densities at 600 nm ( $OD_{600}$ ) were measured hourly. Each point of the growth curves is an average of at least three independent experiments and the error was in all cases below 15%. The growth rates for each strain are also indicated and the values shown are averages  $\pm$  SD. The arrows indicate the mid-exponential and transition-to-stationary time-points at which D39 and D39 $\Delta$ *ccpA* samples were withdrawn for transcriptomic and metabolic profiling analysis.