Table 1. Quantifying the contribution of protein aggregation to E. coli aging

Mean growth rate ($\times 10^{-2} \text{ min}^{-1}$) Population 2 Population 1 Offspring with inclusion body (332 cell pairs) (257 cell pairs) Overall offspring (GRoffspring) 3.61 ± 0.01 3.61 ± 0.01 Old-pole offspring (GR_{old}) 3.54 ± 0.02 3.59 ± 0.02 New-pole offspring (GR_{now}) 3.69 ± 0.02 3.63 ± 0.02 Mother cell (GR_{mother}) 3.62 ± 0.02 3.66 ± 0.02

Exponential growth rates (GR) of the old-pole (population 1) and new-pole (population 2) offspring cells from all new-pole mother cells containing inclusion bodies, subdivided into two populations as described. Statistical significance values (t test) for the GR differences across the obtained data are as follows: $GR_{\text{old}} \neq GR_{\text{new}}$, $P < 10^{-4}$ for population 1 and n.s. (not significant; P > 0.1) for population 2; $GR_{\text{mother}} \neq GR_{\text{new}}$, $P = 2.3 \times 10^{-3}$ for population 1 and n.s. for population 2; $GR_{\text{mother}} \neq GR_{\text{old}}$, $P = 3.9 \times 10^{-4}$ for population 1 and 1.7×10^{-3} for population 2. Difference in aging between the two populations: $(GR_{\text{old}} - GR_{\text{new}})_{\text{population1}} \neq (GR_{\text{old}} - GR_{\text{new}})_{\text{population2}}$, $P = 3.4 \times 10^{-4}$. Effect of inclusion body presence on new-pole offspring: $(GR_{\text{new}})_{\text{population1}} \neq (GR_{\text{old}})_{\text{population2}}$, P = 0.019. Effect of inclusion body presence on old-pole offspring: $(GR_{\text{old}})_{\text{population1}} \neq (GR_{\text{old}})_{\text{population2}}$, P = 0.035.