

density maintenance theory

$$\left[\frac{S_A}{V} \right] \sim \frac{\kappa \phi_{mem}}{2(1 + \beta \phi_{rib} - \phi_{mem} - \phi_{peri})}$$

S_A : surface-to-volume ratio
 V : volume
 κ : cytoplasm-membrane density ratio
 ϕ_{mem} : membrane proteome fraction
 β : RNA-protein ratio
 ϕ_{rib} : ribosomal proteome fraction
 ϕ_{peri} : periplasmic proteome fraction

fit uncertainty: 95%, 68%, median, $\approx 1\sigma$, $\approx 2\sigma$

