S1 Table – Parameter values of self-replicator model[1]

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Parameter	Unit	Literature value	Fitted value
γ	–	No value	1.39
k_R	h^{-1}	3.6	2.23
e_M for M63+glycerol	h^{-1}	< 3.6	0.587
e_M for M63+glucose	h^{-1}	< 3.6	0.867
e_M for cAA+glycerol	h^{-1}	< 3.6	1.07
e_M for cAA+glucose	h^{-1}	< 3.6	1.57
e_M for RDM+glycerol	h^{-1}	< 3.6	3.48
e_M for RDM+glucose	h^{-1}	< 3.6	4.76
βK_R	–	0.003	Not fitted

Table S1: **Parameter values of self-replicator model** The parameter values in the model were obtained by fitting Eq. 25 to the data of Scott et al [1] (Fig. 3 in the main text), as described in the *Methods* section. They are compared with order-of-magnitude estimates from the literature (S2 Text).

References

[1] Scott M, Gunderson CW, Mateescu EM, Zhang Z, Hwa T. Interdependence of cell growth and gene expression: origins and consequences. Science. 2010 Nov;330(6007):1099–102. doi: 10.1126/science.1192588.

[1]Supporting Information of "Dynamical Allocation of Cellular Resources as an Optimal Control Problem: Novel Insights into Microbial Growth Strategies "