Table S1. Set of yeast genes reported to be associated with increased replicative life span used to construct the shortest-path longevity network. This list was derived from the our Aging Genes/Interventions Database (formerly the SAGE KE Genes/Interventions Database [1]; http://www.kaeberleinlab.org/ageid) and from independent literature searches.

ORF	GENE	EFFECT ON RLS	REFERENCE
YNR051C	BRE5	Deletion increases RLS	[2]
YLR310C	CDC25	Point mutation increases RLS	[3]
YJL194W	CDC6	Deletion increases RLS	[4]
YJL005W	CYR1	Point mutation increases RLS	[3]
YDR110W	FOB1	Deletion increases RLS	[5]
YER020W	GPA2	Deletion increases RLS	[3]
YDL035C	GPR1	Deletion increases RLS	[3]
YKL109W	HAP4	Overexpression increases RLS	[3]
YGL253W	HXK2	Deletion increases RLS	[3]
YOR136W	IDH2	Deletion increases RLS	[2]
YHL003C	LAG1	Deletion or overexpression increases RLS	[6]
YOL025W	LAG2	Deletion increases RLS	[7]
YGL178W	MPT5	Overexpression increases RLS	[8]
YPR030W	MRG19	Deletion increases RLS	[9]
YLR285W	NNT1	Overexpression increases RLS	[10]
YOR209C	NPT1	Overexpression increases RLS	[11]
YGL037C	PNC1	Overexpression increases RLS	[10]
YOR101W	RAS1	Deletion increases RLS	[12]
YNL0986	RAS2	Overexpression increases RLS	[12]
YBR267W	REI1	Deletion increases RLS	[2]
YLR371W	ROM2	Deletion increases RLS	[2]
YNL330C	RPD3	Deletion increases RLS	[13]
YDL075W	RPL31A	Deletion increases RLS	[2]
YLR448W	RPL6B	Deletion increases RLS	[2]
YBL103C	RTG3	Deletion increases RLS	[14]
YHR205W	SCH9	Deletion increases RLS	[15]
YOR367W	SCP1	Deletion increases RLS	[16]
YDL042C	SIR2	Overexpression increases RLS	[17]
YDR227W	SIR4	Semi-dominant Sir4-42 allele increases RLS	[18]
YGL115W	SNF4	Deletion increases RLS	[19]
YDR293C	SSD1	SSD1-V allele increases RLS	[20]
YJR066W	TOR1	Deletion increases RLS	[2]
YPL203W	TPK2	Point mutation increases RLS	[3]
YNL229C	URE2	Deletion increases RLS	[2]
YKR042W	UTH1	Deletion increases RLS	[18]
YBR238C	YBR238C	Deletion increases RLS	[2]
YBR255W	YBR255W	Deletion increases RLS	[2]
YBR266C	YBR266C	Deletion increases RLS	[2]
YOR135C	YOR135C	Deletion increases RLS	[2]
YMR273C	ZDS1	Deletion increases RLS	[21]

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