

Title: Identification of healthspan-promoting genes in *Caenorhabditis elegans* based on a human GWAS study

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Authors: Nadine Saul, Ineke Dhondt, Mikko Kuokkanen, Markus Perola, Clara Verschuuren, Brecht Wouters, Henrik von Chrzanowski, Winnok H. De Vos, Liesbet Temmerman, Walter Luyten, Aleksandra Zečić, Tim Loier, Christian Schmitz-Linneweber, Bart P. Braeckman

Corresponding author: Nadine Saul, Molecular Genetics Group, Institute of Biology, Humboldt University of Berlin, 10115 Berlin, Germany; Email: nadine.saul@gmx.de

ESM_5: Selection of 13 *C. elegans* genes potentially involved in healthy ageing

Human gene	<i>C. elegans</i> homologs	NCBI HomoloGene	Ortholist 2	HMMER	Aceview
DFFB	/	/	/	/	/
ELOVL6	elo-3	✓	✓	✓	✓
	elo-9	/	✓	✓	/
	elo-4	/	✓	✓	/
	elo-1	/	✓	✓	/
	elo-2	/	✓	✓	/
	elo-5	/	/	✓	/
	elo-6	/	/	✓	/
	elo-7	/	/	✓	/
WWC2	wwp-1	/	/	✓	/
	Y92H12A.2	/	/	✓	/
	magi-1	/	/	✓	/
	frm-8	/	/	✓	/
	yap-1	/	/	✓	/
	sav-1	/	/	✓	/
	gex-2	/	/	/	✓
CDKN2AIP	paxt-1	/	/	✓	✓
ANXA1	nex-1	/	✓	✓	/
	nex-2	/	✓	✓	✓
	nex-3	/	/	✓	/
	nex-4	/	/	✓	/
ACADS	acdh-3	/	✓	✓	✓
	acdh-1	/	✓	✓	✓
	ivd-1	/	/	✓	✓
	acdh-10	/	/	✓	✓
	acdh-8	/	/	✓	✓
	acdh-7	/	/	✓	✓
	acdh-4	/	/	✓	/
	acdh-9	/	/	✓	/
	acdh-2	/	/	✓	/
	acdh-5	/	/	✓	/

	<i>acd</i> <i>h</i> -6	/	/	✓	/
	<i>acd</i> <i>h</i> -12	/	/	✓	/
	<i>F54D5.7</i>	/	/	✓	/
	<i>acd</i> <i>h</i> -11	/	/	✓	/
	<i>acd</i> <i>h</i> -13	/	/	✓	/
CLDN22	/	/	/	/	/
CLDN24	/	/	/	/	/
UBASH3A	<i>T07F12.1</i>	/	✓	✓	✓
	<i>C52E4.7</i>	/	✓	✓	/
	<i>F53B6.7</i>	/	✓	✓	/
	<i>F55A11.11</i>	/	✓	✓	/
	<i>F09C12.8</i>	/	✓	✓	/
	<i>ZK484.6</i>	/	/	✓	/
	<i>sorb-1</i>	/	/	✓	/
RSPH1	<i>jph-1</i>	/	/	✓	✓

Abbreviations: DFFB = DNA Fragmentation Factor Subunit Beta, ELOVL6 = Elongation of very long chain fatty acids protein 6, WWC2 = WW and C2 domain containing 2, CDKN2AIP = CDKN2A Interacting Protein, ANXA1 = Annexin A1, ACADS = Acyl-CoA dehydrogenase, C-2 to C-3 short chain, CLDN22/24 = claudin 22/24, UBASH3A = ubiquitin associated and SH3 domain containing A, RSPH1 = radial spoke head component 1.