

## Supplementary Tables

**Supplementary Table 1. Bonferroni post-hoc analysis after one-way ANOVA<sup>a</sup> of the pharyngeal pumping rate of the wild type N2 strain and each mutant strain.**

Strain (I)	Strain (J)	Mean Difference (I-J)	P <sup>b</sup>
N2	<i>ser-1</i>	37.333	0.001 ***
	<i>ser-2</i>	20.133	0.001 ***

<sup>a</sup>One-Way ANOVA (sum of squares = 51334.857; df = 21; F = 94.821; P = 0.001 \*\*\*)

<sup>b</sup>Statistical p-values: \*\*\*p < 0.001

**Supplementary Table 2. One-way ANOVA analysis of the pharyngeal pumping rate between each strain with and without risperidone or aripiprazole.**

Strain	Sum of sq	df	F	P <sup>a</sup>
N2/N2 + Risp	64774.533	1	192.464	0.001 ***
N2/N2 + Ari	37200.600	1	188.928	0.001 ***
<i>ser-1/ser-1</i> + Risp	5.400	1	0.029	0.865
<i>ser-1/ser-1</i> + Ari	117.600	1	0.595	0.444
<i>ser-2/ser-2</i> + Risp	21432.600	1	93.519	0.001 ***
<i>ser-2/ser-2</i> + Ari	264.600	1	1.089	0.301

<sup>a</sup>Statistical p-values: \*\*\*p < 0.001.

**Supplementary Table 3. Bonferroni post-hoc analysis after one-way ANOVA<sup>a</sup> of mechanosensory response of the wild type N2 strain from different generations after treatment with risperidone.**

Strain (I)	Strain (J)	Mean Difference (I-J)	P <sup>b</sup>
N2	N2 + Risp	3.437	0.001 ***
	n=1	1.645	0.001 ***
	n=2	0.751	0.001 ***
	n=3	0.315	0.678
	Sodium butyrate	0.055	1.000
	Dauer	0.003	1.000

<sup>a</sup>One-Way ANOVA (sum of squares = 483.483; df = 6; F = 119.659; P = 0.001 \*\*\*)

<sup>b</sup>Statistical p-values: \*\*\*p < 0.001.

**Supplementary Table 4. Bonferroni post-hoc analysis after one-way ANOVA<sup>a</sup> of mechanosensory response of the wild type N2 strain from different generations after treatment with aripiprazole.**

<b>Strain (I)</b>	<b>Strain (J)</b>	<b>Mean Difference (I-J)</b>	<b>P<sup>b</sup></b>
N2	N2 + Ari	1.754	0.001 ***
	n=1	0.212	0.506
	Sodium butyrate	-0.107	1.000
	Dauer	-0.235	1.000

<sup>a</sup>One-Way ANOVA (sum of squares = 167.765; df = 4; F = 79.890; P = 0.001 \*\*\*)

<sup>b</sup>Statistical p-values: \*\*\*p < 0.001.

**Supplementary Table 5. Bonferroni post-hoc analysis after one-way ANOVA<sup>a</sup> of the pharyngeal pumping rate of wild type N2 strain from different generations after treatment with risperidone.**

<b>Strain (I)</b>	<b>Strain (J)</b>	<b>Mean Difference (I-J)</b>	<b>P<sup>b</sup></b>
N2	N2 + Risp	46.076	0.001 ***
	n=1	-2.626	1.000
	Sodium butyrate	-8.229	0.129
	Dauer	-4.079	1.000

<sup>a</sup>One-Way ANOVA (sum of squares = 114710.615; df = 4; F = 85.930; P = 0.001 \*\*\*)

<sup>b</sup>Statistical p-values: \*\*\*p < 0.001.

**Supplementary Table 6. Bonferroni post-hoc analysis after one-way ANOVA<sup>a</sup> of the pharyngeal pumping rate of wild type N2 strain from different generations after treatment with aripiprazole.**

<b>Strain (I)</b>	<b>Strain (J)</b>	<b>Mean Difference (I-J)</b>	<b>P<sup>b</sup></b>
N2	N2 + Ari	49.600	0.001 ***
	n=1	27.400	0.001 ***
	n=2	0.400	1.000
	Sodium butyrate	3.600	1.000
	Dauer	4.400	1.000

<sup>a</sup>One-Way ANOVA (sum of squares = 60836.200; df = 5; F = 72.279; P = 0.001 \*\*\*)

<sup>b</sup>Statistical p-values: \*\*\*p < 0.001.