

Table S1A. Behavior in the “elevated plus maze” test, between groups comparisons, the 1st (pre-provocation) trial

	KM rats (mean±Std. er. of mean)	Wistar rats (mean±Std. er. of mean)	p-value
<i><u>Path length, m</u></i>	<u>7,2±0,6</u>	<u>19,6±1,7</u>	<u>0,00002</u>
<i><u>Percentage of time spent in open arms</u></i>	<u>6,2±3,4</u>	<u>16,3±2,4</u>	<u>0,004</u>
<i>Percentage of time spent in closed arms</i>	66,8±4,6	76,5±3,3	0,11
<i>Closed/open-arms entry ratio</i>	3,3±0,8	3,3±0,8	0,76
<i>Falls</i>	0,1±0,1	0,1±0,1	0,94
<i><u>Number of rearings</u></i>	<u>12,3±1,2</u>	<u>20,4±1,9</u>	<u>0,006</u>
<i><u>Number of short grooming</u></i>	<u>10,0±1,2</u>	<u>2,8±0,8</u>	<u>0,00003</u>
<i>Number of hole body grooming</i>	1,9±0,3	1,7±0,4	0,37
<i><u>Number of freezing episodes</u></i>	<u>20,5±2,0</u>	<u>10,6±2,1</u>	<u>0,001</u>
<i><u>Total freezing time, sec</u></i>	<u>212,2±28,9</u>	<u>84,5±26,6</u>	<u>0,0003</u>
<i>Stereotypy (head waiving)</i>	1,5±0,3	0,6±0,3	0,05

Statistical significance is calculated according to Mann-Whitney U-test.

*Significantly differing parameters are underlined. Data are represented as the
mean ± SEM*

Table S1B. Behavior in the “elevated plus maze” test, between-groups comparisons, the 2nd (post-provocation) trial

	KM rats (mean±Std. er. of mean)	Wistar rats (mean±Std. er. of mean)	p-value
<i>Path length, m</i>	15,9±1,2	15,7±1,5	0,69
<i>Percentage of time spent in open arms</i>	1,7±0,6	13,2±4,8	0,08
<i><u>Percentage of time spent in closed arms</u></i>	<u>78,1±4,9</u>	<u>53,8±7</u>	<u>0,007</u>
<i>Closed/open-arms entry ratio</i>	4,1±0,9	3,3±1,2	0,34
<i>Falls</i>	0±0	0±0	
<i><u>Number of rearings</u></i>	<u>9,9±0,7</u>	<u>20,3±1,7</u>	<u>0,000009</u>
<i><u>Number of short grooming</u></i>	<u>7,7±0,9</u>	<u>2,3±0,6</u>	<u>0,00003</u>
<i>Number of whole-body grooming</i>	1,8±0,2	1,3±0,2	0,17
<i>Number of freezing episodes</i>	13,9±2,6	19±2,4	0,10
<i>Total freezing time, sec</i>	150,5±29,9	137±23,3	0,89
<i>Stereotypy (head waiving)</i>	0,3±0,2	0,1±0,1	0,36

Statistical significance is calculated according to Mann-Whitney U-test.

*Significantly differing parameters are underlined. Data are represented as the
mean ± SEM*

Table S1C. Locomotor behavior in the “elevated plus maze” test, within-groups comparisons

KM rats, sound provocation subgroup	Pre-provocation	Post-provocation	p-value
<i><u>Path length, m</u></i>	<u>7,3±0,9</u>	<u>16,5±1,9</u>	<u>0,001</u>
<i><u>Number of freezing episodes</u></i>	<u>19,0±3,7</u>	<u>9,4±2,0</u>	<u>0,04</u>
<i>Total freezing time, sec</i>	217,1±46,5	124,7±43,6	0,10

KM rats, sham subgroup	Before sham provocation	After sham provocation	p-value
<i><u>Path length, m</u></i>	<u>7,1±0,9</u>	<u>15,2±1,7</u>	<u>0,003</u>
<i>Number of freezing episodes</i>	22,1±1,8	18,5±4,3	0,14
<i>Total freezing time, sec</i>	207,2±38,8	176,3±41,7	0,57

Wistar rats, sound provocation subgroup	Pre-provocation	Post-provocation	p-value
<i>Path length, m</i>	17,1±2,9	14,4±2,5	0,44
<i>Number of freezing episodes</i>	12,9±3,3	19,3±3,4	0,23
<i>Total freezing time, sec</i>	124,8±48,3	142,5±36,4	0,50

Wistar rats, sham provocation subgroup	Before sham provocation	After sham provocation	p-value
<i>Path length, m</i>	22,0±1,7	17±1,8	0,07
<i><u>Number of freezing episodes</u></i>	<u>8,4±2,4</u>	<u>18,8±3,5</u>	<u>0,009</u>
<i><u>Total freezing time, sec</u></i>	<u>44,2±15,4</u>	<u>131,4±31,5</u>	<u>0,009</u>

Statistical significance is calculated according to Wilcoxon matched pair test. Significantly differing parameters are written in color. Data are represented as the mean ± SEM

Table S1D. Behavior in the “elevated plus maze” test, the 2nd (post-provocation) trial. Comparison between KM subgroups: AGS-experienced and sham-stressed rats

	KM rats, sound provocation (mean±Std. er. of mean)	KM rats, sham provocation (mean±Std. er. of mean)	p-value
<i>Path length, m</i>	16,5±1,9	15,3±1,7	1
<i>Percentage of time spent in open arms</i>	2,2±1,0	1,2±0,5	0,64
<i>Percentage of time spent in closed arms</i>	76,6±7,4	79,6±6,8	1
<i><u>Closed/open-arms entry ratio</u></i>	<u>5,9±1,1</u>	<u>2,4±1,0</u>	<u>0,04</u>
<i>Falls</i>	0±0	0±0	
<i>Number of rearings</i>	9,9±0,4	10,0±1,3	1
<i>Number of short grooming</i>	8,8±1,6	6,6±0,9	1
<i>Number of whole-body grooming</i>	1,9±0,4	1,7±0,4	1
<i>Number of freezing episodes</i>	9,4±2,0	18,5±4,3	0,08
<i>Total freezing time, sec</i>	124,7±43,6	176,3±41,7	0,76
<i>Stereotypy (head waiving)</i>	0,3±0,3	0,4±0,2	1

Statistical significance is calculated according to Mann-Whitney U-test, with Bonferroni corrections. Significantly differing parameters are underlined. Data are represented as the mean ± SEM

Table S2. Two-choice social preference test, between-groups comparisons

	KM rats (mean±Std. er. of mean)	Wistar rats (mean±Std. er. of mean)	p-value
1st session, Social preference test			
<i>Time spent in stimulus rat zone, sec</i>	218,1±92,6	317,1±75,1	0,69
<i>Time spent in empty cage zone, sec</i>	342,0±99,2	245,8±73,0	0,70
<i>Number of contacts with stimulus rat</i>	4,1±1,7	10,4±3,6	0,20
<i>Number of contacts with empty cage</i>	2,3±0,7	1,6±0,8	0,97
<i>Number of short contacts with stimulus rat</i>	4,1±1,7	9,5±3,4	0,28
<i>Number of long contacts with stimulus rat</i>	0±0	0,9±0,5	0,23
<u><i>Total time of contact with stimulus rat, sec</i></u>	<u>2,7±1,3</u>	<u>12,0±4,0</u>	<u>0,04</u>
<i>Total time of contact with empty cage, sec</i>	1,9±0,8	0,1±0,1	0,926
<u><i>Total freezing time, sec</i></u>	<u>272,0±48,7</u>	<u>97,1±21,7</u>	<u>0,02</u>
2nd session, Social novelty test			
<i>Time spent in familiar stimulus rat zone, sec</i>	284,0±105,7	299,0±78,5	0,97
<i>Time spent in unfamiliar stimulus rat zone, sec</i>	261,9±102,6	277,4±79,7	0,99
<i>Number of contacts with familiar stimulus rat</i>	2,0±0,9	2,0±0,5	1
<i>Number of contacts with unfamiliar stimulus rat</i>	3,3±1,6	5,0±1,4	0,51
<i>Number of short contacts with familiar stimulus rat</i>	2±0,9	2±0,5	0,77
<i>Number of long contacts with unfamiliar stimulus rat</i>	0±0	0±0	
<i>Number of short contacts with familiar stimulus rat</i>	3,1±1,5	4,4±1,2	0,39
<i>Number of long contacts with unfamiliar stimulus</i>	0,1±0,1	0,6±0,4	0,89

<i>rat</i>			
<i>Total time of contact with familiar stimulus rat, sec</i>	1,8±0,8	2,7±0,8	0,86
<i>Total time of contact with unfamiliar stimulus rat, sec</i>	5,4±3,0	10,7±4,0	0,08
<u><i>Total freezing time, sec</i></u>	<u>337,6±32,3</u>	<u>126,2±21,2</u>	<u>0,00</u>

*Statistical significance is calculated according to Mann-Whitney U-test.
Significantly differing parameters are underlined. Data are represented as the
mean ± SEM*

**Table S3A. Socially enriched open field test, the 1st trial (pre-provocation),
between-groups comparisons**

	KM rats (mean±Std. er. of mean)	Wistar rats (mean±Std. er. of mean)	p-value
<i><u>Path length, m</u></i>	<u>18,3±2,8</u>	<u>45,8±4,9</u>	<u>0,0002</u>
<i>% of time in stimulus rat zone</i>	54,9±5,9	43,4±2,6	0,08
<i><u>% path in the stimulus rat zone</u></i>	<u>22,6±3,8</u>	<u>37,8±5,5</u>	<u>0,02</u>
<i>Number of rearings</i>	39,8±5,1	43,3±3,4	0,76
<i><u>Number of short grooming</u></i>	<u>17,8±2,0</u>	<u>5,6±0,5</u>	<u>0,000009</u>
<i>Number of long grooming</i>	1,3±0,4	1,2±0,3	0,98
<i>Number of short contacts</i>	5,1±1,0	8,9±1,7	0,08
<i><u>Number of long contacts</u></i>	<u>4,2±1,0</u>	<u>9,7±1,5</u>	<u>0,007</u>
<i>Defecation</i>	1,3±0,5	1,4±0,5	0,98
<i><u>Number of freezing episodes</u></i>	<u>38,1±6,2</u>	<u>24,0±3,8</u>	<u>0,03</u>
<i>Total freezing time, sec</i>	286,2±58,6	224,7±50,9	0,28
<i>Stereotypy (head waiving)</i>	0,3±0,1	0,3±0,1	0,945

Statistical significance is calculated according to Mann-Whitney U-test.

*Significantly differing parameters are underlined. Data are represented as the
mean ± SEM*

Table S3B. Socially enriched open field test, the locomotor parameters (within-groups comparisons)

KM rats, sound provocation	Pre-provocation	Post-provocation	p-value
<i>Path length, m</i>	21,7±3,7	38,6±6,8	0,10
<i>Number of freezing episodes</i>	42,3±11,4	25,5±4,4	0,28
<i>Total freezing time, sec</i>	319,2±112,5	355,6±104,1	0,85

KM rats, sham provocation	Before sham provocation	After sham provocation	p-value
<i>Path length, m</i>	<u>15,0±3,9</u>	<u>41,0±6,4</u>	<u>0,008</u>
<i>Number of freezing episodes</i>	33,8±5,5	30,9±6,8	1
<i>Total freezing time, sec</i>	253,2±45,2	360,0±89,3	0,85

Wistar rats, sound provocation	Pre-provocation	Post-provocation	p-value
<i>Path length, m</i>	46,1±5,3	51,4±8,1	0,50
<i>Number of freezing episodes</i>	20,8±4,3	25,6±7,4	0,79
<i>Total freezing time, sec</i>	212±78,6	224,4±79,7	0,95

Wistar rats, sham provocation	Before sham provocation	After sham provocation	p-value
<i>Path length, m</i>	45,6±8,7	65±6,1	0,105
<i>Number of freezing episodes</i>	27,3±6,5	19±3,4	0,505
<i>Total freezing time, sec</i>	237,4±69,7	138,5±29,7	0,442

Statistical significance is calculated according to Wilcoxon matched pair test. Significantly differing parameters are written in color. Data are represented as the mean ± SEM

**Table S3C. Socially enriched open field, between subgroups comparisons:
Comparison between KM subgroups: AGS-experienced and sham-stressed rats**

	KM sound provocation (mean±SEM)	KM sham provocation (mean±SEM.)	p-value
<i>Path length, m</i>	38,6±6,8	41±6,4	1
% path in the stimulus rat zone	9,9±2,5	18,2±3,8	0,13
<i>Number of rearings</i>	21,5±6,3	29,4±6,6	0,78
<u><i>Number of short grooming</i></u>	<u>9,1±2,5</u>	<u>14,6±2,6</u>	<u>0,05</u>
<i>Number of long grooming</i>	1,4±0,4	0,9±0,3	0,76
<i>Number of freezing episodes</i>	25,5±4,4	30,9±6,8	1
<i>Number of short contacts</i>	2,6±1,1	3,9±1,5	1
<i>Number of long contacts</i>	2,1±0,6	3,1±1,1	1
<i>Defecation</i>	0,1±0,1	0,5±0,2	0,47
<i>Stereotypy (head waiving)</i>	0,3±0,2	0,3±0,3	1

Statistical significance is calculated according to Mann-Whitney U-test, with Bonferroni corrections. Significantly differing parameters are written in color. Data are represented as the mean ± SEM

**Table S3D. Socially enriched open field test, the 2nd trial (post-provocation),
between groups comparisons**

	<i>KM rats (mean±Std. er. of mean)</i>	<i>Wistar rats (mean±Std. er. of mean)</i>	p-value
<u>Path length, m</u>	<u>39,8±4,5</u>	<u>58,2±5,2</u>	<u>0,02</u>
<u>% of time in stimulus rat zone</u>	<u>10,6±1,7</u>	<u>21,3±2,7</u>	<u>0,006</u>
<u>% path in the stimulus rat zone</u>	<u>14,1±2,4</u>	<u>21,3±2,4</u>	<u>0,03</u>
<u>Number of rearings</u>	<u>25,4±4,5</u>	<u>44,3±5,3</u>	<u>0,02</u>
<u>Number of short grooming</u>	<u>11,9±1,9</u>	<u>6,1±1,3</u>	<u>0,002</u>
Number of long grooming	1,1±0,2	0,9±0,3	0,42
Number of freezing episodes	28,2±4,0	22,3±4,0	0,30
<u>Total freezing time, sec</u>	<u>357,8±66,3</u>	<u>181,5±42,6</u>	<u>0,02</u>
<u>Number of short contacts</u>	<u>3,3±0,9</u>	<u>8,6±1,5</u>	<u>0,003</u>
<u>Number of long contacts</u>	<u>2,6±0,6</u>	<u>10,7±1,3</u>	<u>0,00001</u>
Stereotypy (head waiving)	0,3±0,1	0±0	0,38

Statistical significance is calculated according to Mann-Whitney U-test.
Significantly differing parameters are underlined. Data are represented as the
mean ± SEM

Table S4A Three-chambered social preference test, the 1st trial (pre-provocation), between-groups comparisons

	<i>KM rats (mean±Std. er. of mean)</i>	<i>Wistar rats (mean±Std. er. of mean)</i>	<i>p-value</i>
<i>Path length, m</i>	15,8±3	22,2±2,4	0,09
<i><u>Path length in stimulus rat compartment, m</u></i>	<u>4,2±1,3</u>	<u>10,5±1,2</u>	<u>0,0004</u>
<i>Path length in the empty cage compartment, m</i>	5,4±1	6±0,9	0,56
<i>Path length in the intermediate compartment, m</i>	6±1,3	5,7±0,7	0,98
<i><u>Time spent in stimulus rat compartment, sec</u></i>	<u>106,5±21,1</u>	<u>187,8±19,5</u>	<u>0,02</u>
<i><u>Time spent in the empty cage compartment, sec</u></i>	<u>317,6±47</u>	<u>173,2±16,8</u>	<u>0,009</u>
<i>Time spent in the intermediate compartment, sec</i>	175,6±33,3	239,1±25,4	0,18
<i>Number of rearings</i>	9,1±1,9	14±1,8	0,09
<i>Number of short grooming</i>	3,8±0,9	5±0,9	0,39
<i>Number of long grooming</i>	1,3±0,6	1±0,2	0,59
<i><u>Number of contacts with stimulus rat</u></i>	<u>1,5±0,6</u>	<u>6,3±0,8</u>	<u>0,00003</u>
<i>Number of freezing episodes</i>	17,7±3,8	9,1±1,8	0,06
<i><u>Total freezing time, sec</u></i>	<u>188,7±46,7</u>	<u>56,9±13,7</u>	<u>0,04</u>
<i>Stereotypy (head waiving)</i>	1,4±0,7	0,8±0,4	0,8

Statistical significance is calculated according to Mann-Whitney U-test.

Significantly differing parameters are underlined. Data are represented as the mean ± SEM

Table S4B. Three-chambered social preference test, within-groups comparisons of locomotor parameters

KM rats, sound provocation subgroup	Pre-provocation	Post-provocation	p-value
<i>Path length, m</i>	15,7±5,4	25,3±5,5	0,31
<i>Number of freezing episodes</i>	17,3±4,6	11,3±6,8	0,18
<i>Average freezing time, sec</i>	9,2±2,2	5,5±0,7	0,39
<i>Total freezing time, sec</i>	195,8±73,9	82,6±56,3	0,13

KM rats, sham provocation subgroup	Before sham provocation	After sham provocation	p-value
<u><i>Path length, m</i></u>	<u>16,0±3,2</u>	<u>27,5±3,3</u>	<u>0,03</u>
<i>Number of freezing episodes</i>	18,0±6,4	8,0±4,1	0,12
<u><i>Total freezing time, sec</i></u>	<u>181,6±64,1</u>	<u>45,2±23,5</u>	<u>0,05</u>

Wistar rats, sound provocation subgroup	Pre-provocation	Post-provocation	p-value
<i>Path length, m</i>	21,5±3,8	29,2±5,3	0,27
<i>Number of freezing episodes</i>	9,3±2,5	5,6±1,9	0,16
<i>Average freezing time, sec</i>	6,1±0,4	10,3±5,1	0,50
<i>Total freezing time, sec</i>	59,6±19,6	51,3±20,1	0,44

Wistar rats, sham provocation subgroup	Before sham provocation	After sham provocation	p-value
<i>Path length, m</i>	23±3,3	30,2±2,2	0,16
<i>Number of freezing episodes</i>	8,9±2,8	4,6±0,9	0,38
<i>Average freezing time, sec</i>	5,2±0,5	8,2±1,8	0,23
<i>Total freezing time, sec</i>	54,3±20,4	43,2±14,1	0,79

Statistical significance is calculated according to Wilcoxon matched pair test. Significantly differing parameters are written in color. Data are represented as the mean \pm SEM

**Table S4C. Three-chambered social preference test, 2nd trial (post-provocation).
Comparison between KM subgroups: AGS-experienced and sham-stressed rats**

	<i>KM sound provocation (mean±SEM)</i>	<i>KM sham provocation (mean±SEM)</i>	<i>p-value</i>
<i>Path length, m</i>	25,3±5,5	27,5±3,3	1
<i>Path length in stimulus rat compartment, m</i>	8,0±2,8	7,9±1,2	1
<i>Path length in the empty cage compartment, m</i>	10,7±1,1	10,0±2,0	1
<i>Path length in the intermediate compartment, m</i>	6,0±2,2	9,7±1,7	1
<i>Number of rearings</i>	2,5±1,1	2,2±0,9	1
<i>Number of short grooming</i>	3,8±1,0	2,4±1,5	0,84
<i>Number of long grooming</i>	0,3±0,3	0,2±0,2	1
<i>Number of short contacts with stimulus rat</i>	4,5±0,8	5,8±1,2	1
<i>Number of long contacts with stimulus rat</i>	2,7±0,7	3,2±0,5	0,65
<i>Time spent in stimulus rat compartment, sec</i>	121,3±41,7	216,2±23,2	0,35
<i>Time spent in the empty cage compartment, sec</i>	291,4±42,2	207,7±28,3	0,50
<i>Time spent in the intermediate compartment, sec</i>	187,3±19,3	176,1±30,8	1
<i>Number of freezing episodes</i>	11,3±6,8	8,0±4,1	1
<i>Total freezing time, sec</i>	82,6±56,3	45,2±23,5	1
<i>Stereotypy (head waiving)</i>	0±0	0±0	

Statistical significance is calculated according to Mann-Whitney U-test, with Bonferroni corrections. Significantly differing parameters are written in color. Data are represented as the mean ± SEM

**Table S4D. Three-chambered social preference, the 2nd trial (post-provocation),
between-groups comparisons**

	<i>KM rats (mean±Std. er. of mean)</i>	<i>Wistar rats (mean±Std. er. of mean)</i>	<i>p-value</i>
<i>Path length, m</i>	26,3±3,2	29,7±2,8	0,57
<i>Path length in stimulus rat compartment, m</i>	7,9±1,5	9,8±1,1	0,45
<i>Path length in the empty cage compartment, m</i>	10,4±1,1	12,5±1,6	0,34
<i>Path length in the intermediate compartment, m</i>	8,0±1,5	7,4±0,9	0,90
<u><i>Time spent in stimulus rat compartment, sec</i></u>	<u>164,4±28,2</u>	<u>266,1±26,5</u>	<u>0,01</u>
<i>Time spent in the empty cage compartment, sec</i>	253,4±28,4	187±20,2	0,09
<i>Time spent in the intermediate compartment, sec</i>	182,2±16,7	146,9±18,8	0,21
<u><i>Number of short grooming</i></u>	<u>2,4±0,7</u>	<u>9,1±1,3</u>	<u>0,0002</u>
<u><i>Number of long grooming</i></u>	<u>0,3±0,2</u>	<u>1,4±0,2</u>	<u>0,003</u>
<i>Number of short contacts with stimulus rat</i>	3,2±0,9	3,7±1,0	0,90
<i>Number of long contacts with stimulus rat</i>	2,9±0,4	4,0±0,5	0,16
<i>Number of freezing episodes</i>	9,8±4,0	5,1±1,0	0,79
<i>Total freezing time, sec</i>	65,6±31,6	47,2±11,9	0,54
<i>Stereotypy (head waiving)</i>	0±0	0±0	

According to Mann-Whitney U-test. Significantly differing parameters are underlined. Data are represented as the mean ± SEM

**Table S5A. Three-chambered social novelty, the 1st trial (pre-provocation),
between-groups comparisons**

	<i>KM rats (mean±Std. er. of mean)</i>	<i>Wistar rats (mean±Std. er. of mean)</i>	<i>p-value</i>
<u>Path length, m</u>	<u>4,0±0,8</u>	<u>12,6±1,7</u>	<u>0,00004</u>
<u>Path length in familiar stimulus rat compartment, m</u>	<u>0,6±0,3</u>	<u>3,6±0,6</u>	<u>0,0003</u>
<u>Path length in the unfamiliar stimulus rat compartment, m</u>	<u>2,0±0,5</u>	<u>5,3±0,8</u>	<u>0,002</u>
<u>Path length in the intermediate compartment, m</u>	<u>1,6±0,5</u>	<u>3,6±0,6</u>	<u>0,02</u>
<u>Time spent in familiar stimulus rat compartment, sec</u>	<u>61,0±24,4</u>	<u>196,3±31,7</u>	<u>0,002</u>
<u>Time spent in the unfamiliar stimulus rat compartment, sec</u>	271,1±51,4	272,0±26,6	0,69
<u>Time spent in the intermediate compartment, sec</u>	<u>271,4±50,9</u>	<u>131,7±15,9</u>	<u>0,0003</u>
<u>Number of rearings</u>	<u>1,4±0,5</u>	<u>8,6±1,3</u>	<u>0,00002</u>
<u>Number of short grooming</u>	1,8±0,7	4,1±1,0	0,06
<u>Number of long grooming</u>	<u>0±0</u>	<u>1,4±0,2</u>	<u>0,0001</u>
<u>Number of contacts with familiar stimulus rat</u>	<u>0,3±0,1</u>	<u>2,7±0,3</u>	<u>0,000001</u>
<u>Number of contacts with unfamiliar stimulus rat</u>	<u>0,8±0,3</u>	<u>4,1±0,7</u>	<u>0,001</u>
<u>Number of freezing episodes</u>	19,3±3,2	18,2±2,4	0,66
<u>Total freezing time, sec</u>	<u>467,6±20,1</u>	<u>135,2±27,1</u>	<u>0,00</u>
<u>Stereotypy (head waiving)</u>	0,9±0,4	0,6±0,2	0,83

*Statistical significance is calculated according to Mann-Whitney U-test.
Significantly differing parameters are underlined. Data are represented as the
mean \pm SEM*

Table S5B. Three-chambered social novelty test, within-groups comparisons (the locomotor parameters between the two trials)

KM rats, sound provocation subgroup	Pre-provocation	Post-provocation	p-value
<i><u>Path length, m</u></i>	<u>3,1±0,7</u>	<u>14,8±3,4</u>	<u>0,009</u>
<i>Number of freezing episodes</i>	18,0±5,9	16,3±2,6	0,81
<i><u>Total freezing time, sec</u></i>	<u>480,5±27,5</u>	<u>196,8±55,6</u>	<u>0,002</u>

KM rats, sham provocation subgroup	Before sham provocation	After sham provocation	p-value
<i>Path length, m</i>	4,9±1,5	7,0±2,8	0,66
<i>Number of freezing episodes</i>	20,5±3,0	18,4±2,1	0,24
<i>Total freezing time, sec</i>	454,6±31	319,5±79,9	0,32

Wistar rats, sound provocation	Pre-provocation	Post-provocation	p-value
<i>Path length, m</i>	14,1±2,7	18,3±3,1	0,27
<i>Number of freezing episodes</i>	15,8±3,8	10,4±1,3	0,27
<i>Total freezing time, sec</i>	117,1±45	64,2±10,7	0,44

Wistar rats, sham provocation	Before sham provocation	After sham provocation	p-value
<i><u>Path length, m</u></i>	<u>11,0±2,0</u>	<u>19,4±1,6</u>	<u>0,01</u>
<i><u>Number of freezing episodes</u></i>	<u>20,6±2,9</u>	<u>11,6±2,0</u>	<u>0,021</u>
<i>Total freezing time, sec</i>	153,2±31,9	73,5±14,1	0,06

Statistical significance is calculated according to Wilcoxon matched pair test. Significantly differing parameters are written in color. Data are represented as the mean ± SEM

**Table S5C. Three-chambered social novelty test, 2nd trial (post-provocation),
between KM subgroups comparison**

	<i>KM sound provocation (mean±SEM)</i>	<i>KM sham provocation (mean±SEM)</i>	<i>p-value</i>
<i>Path length, m</i>	14,8±3,4	7,0±2,8	0,50
<i>Path length in stimulus rat compartment, m</i>	4,6±0,9	2,8±1,4	065
<i>Path length in the empty cage compartment, m</i>	4,9±1,3	1,5±1,1	0,35
<i>Path length in the intermediate compartment, m</i>	5,2±1,6	2,7±0,5	0,85
<i>Time spent in stimulus rat compartment, sec</i>	282,4±64,5	206,8±68,7	1
<i>Time spent in the empty cage compartment, sec</i>	174,9±41,8	96,5±57,7	0,85
<i>Time spent in the intermediate compartment, sec</i>	142,7±24,1	296,8±69,4	0,50
<i>Number of rearings</i>	7,5±2,2	10,2±3,2	1
<i>Number of short grooming</i>	2,7±0,9	3,6±1,3	1
<i>Number of long grooming</i>	2,0±1,2	0,2±0,2	0,35
<i>Number of short contacts with familiar stimulus rat</i>	2,2±1,2	2,0±0,6	1
<i>Number of long contacts with familiar stimulus rat</i>	0,5±0,3	0,2±0,2	1
<i>Number of short contacts with unfamiliar stimulus rat</i>	3,7±1,3	0,4±0,2	0,06
<i>Number of long contacts with unfamiliar stimulus rat</i>	2,2±0,7	0,2±0,2	0,06
<i>Number of freezing episodes</i>	16,3±2,6	18,4±2,1	1
<i>Total freezing time, sec</i>	196,8±55,6	319,5±79,9	0,50
<i>Stereotypy (head waiving)</i>	0,5±0,2	0,2±0,2	0,85

Statistical significance is calculated according to Mann-Whitney U-test, with Bonferroni corrections. Significantly differing parameters are written in color. Data are represented as the mean \pm SEM

**Table S5D. Three-chambered social novelty test, the 2nd trial (post-provocation),
between-groups comparisons**

	<i>KM rats (mean±Std. er. of mean)</i>	<i>Wistar rats (mean±Std. er. of mean)</i>	<i>p-value</i>
<u>Path length, m</u>	<u>11,3±2,5</u>	<u>18,9±1,7</u>	<u>0,02</u>
<u>Path length in stimulus rat compartment, m</u>	<u>3,8±0,8</u>	<u>6,7±0,8</u>	<u>0,01</u>
<u>Path length in the empty cage compartment, m</u>	<u>3,4±1,0</u>	<u>7,3±1,2</u>	<u>0,09</u>
<i>Path length in the intermediate compartment, m</i>	4,1±0,9	4,9±0,8	0,45
<i>Time spent in stimulus rat compartment, sec</i>	248,0±46,2	209,4±20,7	0,68
<i>Time spent in the empty cage compartment, sec</i>	139,3±35,1	217,4±22,5	0,16
<i>Time spent in the intermediate compartment, sec</i>	212,8±40,3	173,2±19,6	0,64
<i>Number of rearings</i>	8,7±1,8	14,4±1,8	0,08
<i>Number of short grooming</i>	3,1±0,7	4,9±1,0	0,25
<i>Number of long grooming</i>	1,2±0,7	0,6±0,2	0,94
<i>Number of short contacts with familiar stimulus rat</i>	2,1±0,7	3,1±0,6	0,12
<u>Number of long contacts with familiar stimulus rat</u>	<u>0,4±0,2</u>	<u>2,8±0,4</u>	<u>0,00007</u>
<u>Number of short contacts with unfamiliar stimulus rat</u>	<u>2,2±0,9</u>	<u>4,6±0,7</u>	<u>0,02</u>
<u>Number of long contacts with unfamiliar stimulus rat</u>	<u>1,3±0,5</u>	<u>2,5±0,2</u>	<u>0,02</u>
<u>Number of freezing episodes</u>	<u>17,3±1,6</u>	<u>11,0±1,1</u>	<u>0,008</u>
<u>Total freezing time, sec</u>	<u>252,6±48,8</u>	<u>68,8±8,6</u>	<u>0,001</u>

Stereotypy (head waiving)	0,4±0,2	0±0	0,12
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*Statistical significance is calculated according to Mann-Whitney U-test.
Significantly differing parameters are underlined. Data are represented as the
mean ± SEM*

Table S6. Two-objects/novel object recognition test, between-groups comparisons

the 1st session, 2 new objects	KM rats (<i>mean±SEM</i>)	Wistar rats, (<i>mean±SEM</i>)	p-value
<i>Path length, m</i>	29,1±2,8	30,5±3	0,65
<i>Number of rearings</i>	22,4±1,8	24,2±3,3	0,85
<i>Number of short grooming</i>	5,0±0,7	3,5±0,4	0,07
<i>Number of long grooming</i>	2,5±0,5	2,1±0,5	0,40
<i>Mean number of contacts with objects</i>	6,95±1,1	7,9±0,6	0,34
<i>Mean number of active contacts with objects</i>	2,6±0,7	0,4±0,2	0,12
<i>Number of freezing episodes</i>	6,9±1,5	10,4±2,7	0,37
<i>Total freezing time, sec</i>	38,5±9,2	77,5±25,4	0,24
<i>Stereotypy (head waiving)</i>	0,8±0,3	0,9±0,3	0,93

Statistical significance is calculated according to Mann-Whitney U-test.

Significantly differing parameters are underlined. Data are represented as the mean ± SEM

the 2nd session, the “old” and “new” objects	KM rats (<i>mean±SEM</i>)	Wistar rats, (<i>mean±SEM</i>)	p-value
<i>Path length, m</i>	15,0±2,2	12,4±62,2	0,35
<i>Number of rearings</i>	7,2±1,4	6,4±1,8	0,41
<i>Number of short grooming</i>	1,6±0,4	1,2±0,4	0,30
<i>Number of long grooming</i>	2,6±0,5	2,9±0,6	0,90
<i>Number of contacts with “familiar” object</i>	2,6±0,7	1,9±0,4	0,58
<i>Number of contacts with “new” object</i>	2,9±0,6	2,9±0,5	0,90
<i>Number of active contacts with “familiar” object</i>	1,2±0,6	0,1±0,1	0,25

<i><u>Number of active contacts with “new” object</u></i>	<i><u>1,8±0,4</u></i>	<i><u>0,1±0,1</u></i>	<i><u>0,002</u></i>
<i>Number of freezing episodes</i>	16,8±2,1	23,2±2,2	0,07
<i>Total freezing time, sec</i>	175,4±46,4	236,7±38,6	0,14
<i>Stereotypy (head waiving)</i>	1,9±0,7	0,9±0,4	0,30

*Statistical significance is calculated according to Mann-Whitney U-test.
Significantly differing parameters are underlined. Data are represented as the
mean ± SEM*

Table S7A. Social dominance “tube” test, between groups comparisons. Number of wins, for KM and Wistar groups

	Wins, N	Loses, N	Dead heat, N
KM rats	20	12	8
Wistar rats	12	20	8

KM rats won with a higher probability. Chi-squared $\chi^2=4,00$; $p<0,05$.

Table S7B. Behavioral parameters registered in “the social dominance in a tube” test, between groups comparisons.

	KM rats, (mean\pmsem)	Wistar rats (mean\pmsem)	p-value
<u>Win latency</u>	<u>111,6\pm14,7</u>	<u>39,2\pm19</u>	<u>0,002</u>
<u>Number of pushes</u>	<u>9,4\pm1,5</u>	<u>13,5\pm1,5</u>	<u>0,02</u>
Number of forward propulsions	2,3 \pm 0,4	2,1 \pm 0,4	0,71
<u>Number of retreats</u>	<u>1,0\pm0,4</u>	<u>3,6\pm0,4</u>	<u>0,001</u>

Statistical significance is calculated according to Mann-Whitney U-test.

Significantly differing parameters are underlined. Data are represented as the mean \pm SEM