**Supplementary file 2. Sample sizes and statistical analyses used in this study.** Symbols and colors in “Significance” column match those shown in figures.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Figure** | **Sample** | **Sample size (n)** | **Statistical Test** | **Comparisons** | **P-value/****Adj P-value** | **Significance** |
| **Figure 1** |
| Fig. 1J | **Httex1 males** | **1d (14), 7d (15), 14d (20), 21d (14)** | Two way ANOVA | * 1. Httex1 males (1d, 7d, 14d, 21d)
	2. Httex1 females (1d, 7d, 14d, 21d)
	3. Httex1-12 females (1d, 7d, 14d, 21d)
 | Row (age): <0.0001 | \*\*\*\* |
| Column (genotype): <0.0001 | \*\*\*\* |
| **Httex1 females** | **1d (10), 7d (10), 14d (17), 21d (18)** | Tukey’s multiple comparisons | Httex1 males (1d), Httex1 males (7d) | <0.0001 | \*\*\*\* |
| **Httex1-12 females** | **1d (10), 7d (12), 14d (14), 21d (20)** | Httex1 males (1d), Httex1 males (14d) | <0.0001 | \*\*\*\* |
|  | Httex1 males (1d), Httex1 males (21d) | <0.0001 | \*\*\*\* |
| Httex1 males (7d), Httex1 males (14d) | 0.2204 | n.s. |
| Httex1 males (7d), Httex1 males (21d) | <0.0001 | \*\*\*\* |
| Httex1 males (14d), Httex1 males (21d) | 0.0083 | \*\* |
| Httex1 females (1d), Httex1 females (7d) | 0.0219 | \* |
| Httex1 females (1d), Httex1 females (14d) | <0.0001 | \*\*\*\* |
| Httex1 females (1d), Httex1 females (21d) | <0.0001 | \*\*\*\* |
| Httex1 females (7d), Httex1 females (14d) | 0.0006 | \*\*­­\* |
| Httex1 females (7d), Httex1 females (21d) | <0.0001 | \*\*\*\* |
| Httex1 females (14d), Httex1 females (21d) | 0.6611 | n.s. |
| Httex1-12 females (1d), Httex1-12 females (7d) | 0.8839 | n.s. |
| Httex1-12 females (1d), Httex1-12 females (14d) | 0.0084 | \*\* |
| Httex1-12 females (1d), Httex1-12 females (21d) | 0.0001 | \*\*\* |
| Httex1-12 females (7d), Httex1-12 females (14d) | 0.0507 | n.s. |
| Httex1-12 females (7d), Httex1-12 females (21d) | 0.0014 | \*\* |
| Httex1-12 females (14d), Httex1-12 females (21d) | 0.7439 | n.s. |
| Httex1 males, Httex1 females (1d) | 0.0432 | # |
| Httex1 males, Httex1 females (7d) | <0.0001 | #### |
| Httex1 males, Httex1 females (14d) | <0.0001 | #### |
| Httex1 males, Httex1 females (21d) | <0.0001 | #### |
| Httex1 females, Httex1-12 females (1d) | 0.9953 | n.s. |
| Httex1 females, Httex1-12 females (7d) | 0.0467 | # |
| Httex1 females, Httex1-12 females (14d) | <0.0001 | #### |
| Httex1 females, Httex1-12 females (21d) | <0.0001 | #### |
| Fig. 1K | **Httex1 males** | **1d (14), 7d (15), 14d (20), 21d (14)** | Two way ANOVA | * 1. Httex1 males (1d, 7d, 14d, 21d)

5-8. Httex1 females (1d, 7d, 14d, 21d)* 1. Httex1-12 females (1d, 7d, 14d, 21d)
 | Row (age): <0.0001 | \*\*\*\* |
| Column (genotype): 0.0126 | \* |
| **Httex1 females** | **1d (10), 7d (10), 14d (17), 21d (18)** | Tukey’s multiple comparisons | Httex1 males (1d), Httex1 males (7d) | 0.0025 | \*\* |
| **Httex1-12 females** | **1d (10), 7d (12), 14d (14), 21d (20)** | Httex1 males (1d), Httex1 males (14d) | <0.0001 | \*\*\*\* |
|  | Httex1 males (1d), Httex1 males (21d) | <0.0001 | \*\*\*\* |
| Httex1 males (7d), Httex1 males (14d) | 0.7737 | n.s. |
| Httex1 males (7d), Httex1 males (21d) | 0.0005 | \*\*\* |
| Httex1 males (14d), Httex1 males (21d) | 0.0053 | \*\* |
| Httex1 females (1d), Httex1 females (7d) | 0.9468 | n.s. |
| Httex1 females (1d), Httex1 females (14d) | 0.0322 | \* |
| Httex1 females (1d), Httex1 females (21d) | <0.0001 | \*\*\*\* |
| Httex1 females (7d), Httex1 females (14d) | 0.1431 | n.s. |
| Httex1 females (7d), Httex1 females (21d) | <0.0001 | \*\*\*\* |
| Httex1 females (14d), Httex1 females (21d) | <0.0001 | \*\*\*\* |
| Httex1-12 females (1d), Httex1-12 females (7d) | 0.9236 | n.s. |
| Httex1-12 females (1d), Httex1-12 females (14d) | 0.0127 | \* |
| Httex1-12 females (1d), Httex1-12 females (21d) | <0.0001 | \*\*\*\* |
| Httex1-12 females (7d), Httex1-12 females (14d) | 0.0541 | n.s. |
| Httex1-12 females (7d), Httex1-12 females (21d) | <0.0001 | \*\*\*\* |
| Httex1-12 females (14d), Httex1-12 females (21d) | 0.1119 | n.s. |
| Httex1 males, Httex1 females (1d) | 0.9543 | n.s. |
| Httex1 males, Httex1 females (7d) | 0.0495 | # |
| Httex1 males, Httex1 females (14d) | 0.3798 | n.s. |
| Httex1 males, Httex1 females (21d) | 0.2336 | n.s. |
| Httex1 females, Httex1-12 females (1d) | 0.9594 | n.s. |
| Httex1 females, Httex1-12 females (7d) | 0.9704 | n.s. |
| Httex1 females, Httex1-12 females (14d) | 0.9878 | n.s. |
| Httex1 females, Httex1-12 females (21d) | 0.0001 | ### |
| **Figure 1 - figure supplement 1** |
| Fig. 1 - fig supp 1F | **Httex1Q91** | **8** | One way ANOVA | 1. Httex1Q91
2. Httex1Q25
3. Httex1Q91 + Httex1Q25
4. Httex1Q91 + mCD8
5. Httex1Q91 + GFP
 | <0.0001 | \*\*\*\* |
| **Httex1Q25** | **6** | Tukey’s multiple comparisons | Httex1Q91; Httex1Q91 + Httex1Q25 | <0.0001 | \*\*\*\* |
| **Httex1Q91 + Httex1Q25** | **6** | Httex1Q25; Httex1Q91 + Httex1Q25 | <0.0001 | \*\*\*\* |
| **Httex1Q91 + mCD8** | **6** | Httex1Q91 + Httex1Q25; Httex1Q91 + mCD8 | <0.0001 | \*\*\*\* |
| **Httex1Q91 + GFP** | **7** | Httex1Q91 + Httex1Q25; Httex1Q91 + GFP | <0.0001 | \*\*\*\* |
| **Figure 1 - figure supplement 2** |
| Fig. 1 – fig supp 2D |  | **14** | One way ANOVA | 1. manual (A)
2. seg: Httex1Q91>Httex1Q25 (B1)
3. seg: Httex1Q25>Httex1Q91 (B2)
 | 0.5582 | n.s. |
|  | Tukey’s multiple comparisons | manual (A), seg: Httex1Q91>Httex1Q25 (B1) | 0.6262 | n.s. |
| manual (A), seg: Httex1Q25>Httex1Q91 (B2) | 0.6089 | n.s. |
| seg: Httex1Q91>Httex1Q25 (B1), seg: Httex1Q25>Httex1Q91 (B2) | 0.9996 | n.s. |
| **Figure 1 - figure supplement 3** |
| Fig. 1 – fig supp 3E | **Httex1Q25 in ORNs and Httex1Q25 in PNs** | **6** | One way ANOVA | 1. Httex1Q25 in ORNs and Httex1Q25 in PNs
2. Httex1Q91 in ORNs and mCD8 in PNs
3. Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs
4. Httex1Q91 in ORNs and Httex1Q25 + QS in PNs
 | <0.0001 | \*\*\*\* |
| **Httex1Q91 in ORNs and mCD8 in PNs** | **8** | Tukey’s multiple comparisons | Httex1Q25 in ORNs and Httex1Q25 in PNs,Httex1Q91 in ORNs and mCD8 in PNs | <0.0001 | \*\*\*\* |
| **Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs** | **6** | Httex1Q25 in ORNs and Httex1Q25 in PNs,Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs | <0.0001 | \*\*\*\* |
| **Httex1Q91 in ORNs and Httex1Q25 + QS in PNs** | **6** | Httex1Q25 in ORNs and Httex1Q25 in PNs,Httex1Q91 in ORNs and Httex1Q25 + QS in PNs | <0.0001 | \*\*\*\* |
|  | Httex1Q91 in ORNs and mCD8 in PNs,Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs | 0.2281 | n.s. |
| Httex1Q91 in ORNs and mCD8 in PNs,Httex1Q91 in ORNs and Httex1Q25 + QS in PNs | 0.9824 | n.s. |
| Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs,Httex1Q91 in ORNs and Httex1Q25 + QS in PNs | 0.1568 | n.s. |
| Fig. 1 – fig supp 3F | **Httex1Q25 in ORNs and Httex1Q25 in PNs** | **6** | One way ANOVA | 1. Httex1Q25 in ORNs and Httex1Q25 in PNs
2. Httex1Q91 in ORNs and mCD8 in PNs
3. Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs
4. Httex1Q91 in ORNs and Httex1Q25 + QS in PNs
 | 0.0011 | \*\* |
| **Httex1Q91 in ORNs and mCD8 in PNs** | **8** | Tukey’s multiple comparisons | Httex1Q25 in ORNs and Httex1Q25 in PNs,Httex1Q91 in ORNs and mCD8 in PNs | >0.9999 | n.s. |
| **Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs** | **6** | Httex1Q25 in ORNs and Httex1Q25 in PNs,Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs | 0.0078 | \*\* |
| **Httex1Q91 in ORNs and Httex1Q25 + QS in PNs** | **6** | Httex1Q25 in ORNs and Httex1Q25 in PNs,Httex1Q91 in ORNs and Httex1Q25 + QS in PNs | 0.0110 | \*\* |
|  | Httex1Q91 in ORNs and mCD8 in PNs,Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs | 0.0043 | \*\* |
| Httex1Q91 in ORNs and mCD8 in PNs,Httex1Q91 in ORNs and Httex1Q25 + QS in PNs | 0.0063 | \*\* |
| Httex1Q91 + Gal80 in ORNs and Httex1Q25 in PNs,Httex1Q91 in ORNs and Httex1Q25 + QS in PNs | 0.9987 | n.s. |
| **Figure 1 - figure supplement 4** |
| Fig. 1 – fig supp 4C |  | **7d (5), 14d (5)** | One way ANOVA | 1. 1d
2. 7d
3. 14d
 | 0.1203 | n.s. |
|  | Tukey’s multiple comparisons | 1d, 7d | 0.4402 | n.s. |
| 1d, 14d | 0.1027 | n.s. |
| 7d, 14d | 0.6190 | n.s. |
| Fig. 1 – fig supp 4D |  | **7d (5), 14d (5)** | One way ANOVA | 1. 1d
2. 7d
3. 14d
 | 0.6936 | n.s. |
|  | Tukey’s multiple comparisons | 1d, 7d | 0.6691 | n.s. |
| 1d, 14d | 0.9025 | n.s. |
| 7d, 14d | 0.9025 | n.s. |
| **Figure 2** |
| Fig. 2E3 | **all** | **28** | n/a |
| Fig. 2F | **Httex1Q91** | **1d (1,138), 7d (2,235), 14d (4309), 21d (5,435)** | One way ANOVA | * 1. Httex1Q91 (1d, 7d, 14d, 21d)
	2. Httex1Q91+Httex1Q25 (1d, 7d, 14d, 21d)
	3. Httex1-12Q138 (1d, 7d, 14d, 21d)
	4. Httex1-12Q138+Httex1Q25 (1d, 7d, 14d, 21d)
 | <0.0001 | \*\*\*\* |
| **Httex1Q91+Httex1Q25** | **1d (8), 7d (36), 14d (319), 21d (392)** | Tukey’s multiple comparisons | Httex1Q91 (1d), Httex1Q91 (7d) | <0.0001 | \*\*\*\* |
| **Httex1-12Q138** | **1d (271), 7d (469), 14d (1,196), 21d (1,944)** | Httex1Q91 (1d), Httex1Q91 (14d) | <0.0001 | \*\*\*\* |
| **Httex1-12Q138+Httex1Q25** | **1d (1), 7d (16), 14d (73), 21d (175)** | Httex1Q91 (1d), Httex1Q91 (21d) | <0.0001 | \*\*\*\* |
|  | Httex1Q91 (7d), Httex1Q91 (14d) | >0.9999 | n.s |
| Httex1Q91 (7d), Httex1Q91 (21d) | 0.6464 | n.s. |
| Httex1Q91 (14d), Httex1Q91 (21d) | 0.6089 | n.s. |
| Httex1Q91+Httex1Q25 (1d), Httex1Q91+Httex1Q25 (7d) | >0.9999 | n.s |
| Httex1Q91+Httex1Q25 (1d), Httex1Q91+Httex1Q25 (14d) | 0.9997 | n.s. |
| Httex1Q91+Httex1Q25 (1d), Httex1Q91+Httex1Q25 (21d) | >0.9999 | n.s |
| Httex1Q91+Httex1Q25 (7d), Httex1Q91+Httex1Q25 (14d) | >0.9999 | n.s |
| Httex1Q91+Httex1Q25 (7d), Httex1Q91+Httex1Q25 (21d) | >0.9999 | n.s |
| Httex1Q91+Httex1Q25 (14d), Httex1Q91+Httex1Q25 (21d) | 0.9993 | n.s. |
| Httex1-12Q138(1d), Httex1-12Q138 (7d) | 0.0046 | \*\* |
| Httex1-12Q138 (1d), Httex1-12Q138 (14d) | <0.0001 | \*\*\*\* |
| Httex1-12Q138 (1d), Httex1-12Q138 (21d) | <0.0001 | \*\*\*\* |
| Httex1-12Q138 (7d), Httex1-12Q138 (14d) | 0.9118 | n.s. |
| Httex1-12Q138 (7d), Httex1-12Q138 (21d) | 0.0772 | n.s. |
| Httex1-12Q138 (14d), Httex1-12Q138 (21d) | 0.8720 | n.s. |
| Httex1-12Q138+Httex1Q25 (1d), Httex1-12Q138+Httex1Q25 (7d) | >0.9999 | n.s |
| Httex1-12Q138+Httex1Q25 (1d), Httex1-12Q138+Httex1Q25 (14d) | >0.9999 | n.s |
| Httex1-12Q138+Httex1Q25 (1d), Httex1-12Q138+Httex1Q25 (21d) | >0.9999 | n.s |
| Httex1-12Q138+Httex1Q25 (7d), Httex1-12Q138+Httex1Q25 (14d) | >0.9999 | n.s |
| Httex1-12Q138+Httex1Q25 (7d), Httex1-12Q138+Httex1Q25 (21d) | >0.9999 | n.s |
| Httex1-12Q138+Httex1Q25 (14d), Httex1-12Q138+Httex1Q25 (21d) | >0.9999 | n.s |
| Httex1Q91, Httex1Q91+Httex1Q25 (1d) | >0.9999 | n.s. |
| Httex1Q91, Httex1Q91+Httex1Q25 (7d) | >0.9999 | n.s. |
| Httex1Q91, Httex1Q91+Httex1Q25 (14d) | 0.8198 | n.s. |
| Httex1Q91, Httex1Q91+Httex1Q25 (21d) | 0.0002 | ### |
| Httex1Q91, Httex1-12Q138 (1d) | >0.9999 | n.s |
| Httex1Q91, Httex1-12Q138 (7d) | >0.9999 | n.s |
| Httex1Q91, Httex1-12Q138 (14d) | 0.7032 | n.s. |
| Httex1Q91, Httex1-12Q138 (21d) | 0.0306 | ^ |
| Httex1-12Q138, Httex1-12Q138+Httex1Q25 (1d) | >0.9999 | n.s |
| Httex1-12Q138, Httex1-12Q138+Httex1Q25 (7d) | 0.9737 | n.s. |
| Httex1-12Q138, Httex1-12Q138+Httex1Q25 (14d) | 0.0071 | ## |
| Httex1-12Q138, Httex1-12Q138+Httex1Q25 (21d) | <0.0001 | #### |
| Httex1Q91+Httex1Q25, Httex1-12Q138+Httex1Q25 (1d) | >0.9999 | n.s |
| Httex1Q91+Httex1Q25, Httex1-12Q138+Httex1Q25 (7d) | >0.9999 | n.s |
| Httex1Q91+Httex1Q25, Httex1-12Q138+Httex1Q25 (14d) | 0.6826 | n.s. |
| Httex1Q91+Httex1Q25, Httex1-12Q138+Httex1Q25 (21d) | 0.9996 | n.s. |
| Fig. 2G | **Httex1Q91** | **13,132** | unpaired t-test | Httex1Q91, Httex1Q91+Httex1Q25 | 0.0005 | \*\*\* |
| **Httex1Q91+Httex1Q25** | **754** |
| Fig. 2H | **Httex1-12Q138** | **3,887** | unpaired t-test | Httex1-12Q138, Httex1-12Q138+Httex1Q25 | <0.0001 | \*\*\*\* |
| **Httex1-12Q138+****Httex1Q25** | **265** |
| **Figure 3** |
| Fig. 3C | **+LacZ** | **4d (12), 10d (8)** | Two way ANOVA | 1. +LacZ (4d)
2. +shits1#1 (4d)
3. +shits1#2 (4d)
 | 1. +LacZ (10d)
2. +shits1#1 (10d)
3. +shits1#2 (10d)
 | Row (age): <0.0001 | \*\*\*\* |
| Column (genotype): 0.2112 | n.s. |
| **+shits1#1** | **4d (10), 10d (8)** | Tukey’s multiple comparisons | +LacZ (4d), +shits1#1 (4d) | 0.9687 | n.s. |
| **+shits1#2** | **4d (10), 10d (11)** | +LacZ (4d), +shits1#2 (4d) | 0.4043 | n.s. |
|  | +LacZ (10d), +shits1#1 (10d) | 0.0419 | \* |
| +LacZ (10d), +shits1#2 (10d) | 0.1655 | n.s. |
| Fig. 3D | **+LacZ** | **4d (12), 10d (8)** | Two way ANOVA | 1. +LacZ (4d)
2. +shits1#1 (4d)
3. +shits1#2 (4d)
 | 1. +LacZ (10d)
2. +shits1#1 (10d)
3. +shits1#2 (10d)
 | Row (age): <0.0001 | \*\*\*\* |
| Column (genotype): <0.0001 | \*\*\*\* |
| **+shits1#1** | **4d (10), 10d (8)** | Tukey’s multiple comparisons | +LacZ (4d), +shits1#1 (4d) | 0.9637 | n.s. |
| **+shits1#2** | **4d (10), 10d (11)** | +LacZ (4d), +shits1#2 (4d) | <0.0001 | \*\*\*\* |
|  | +LacZ (10d), +shits1#1 (10d) | <0.0001 | \*\*\*\* |
| +LacZ (10d), +shits1#2 (10d) | <0.0001 | \*\*\*\* |
| Fig. 3G | **+LacZ** | **4d (8), 10d (10)** | Two way ANOVA | 1. +LacZ (4d)
2. +TeTxLC#1 (4d)
3. +TeTxLC#2 (4d)
 | 1. +LacZ (10d)
2. +TeTxLC#1 (10d)
3. +TeTxLC#2 (10d)
 | Row (age): <0.0001 | \*\*\*\* |
| Column (genotype): <0.0001 | \*\*\*\* |
| **+TeTxLC#1** | **4d (10), 10d (9)** | Tukey’s multiple comparisons | +LacZ (4d), +TeTxLC#1 (4d) | 0.0021 | \*\* |
| **+TeTxLC#2** | **4d (10), 10d (6)** | +LacZ (4d), +TeTxLC#2 (4d) | <0.0001 | \*\*\*\* |
|  | +LacZ (10d), +TeTxLC#1 (10d) | 0.2651 | n.s. |
| +LacZ (10d), +TeTxLC#2 (10d) | <0.0001 | \*\*\*\* |
| Fig. 3H | **+LacZ** | **4d (8), 10d (10)** | Two way ANOVA | 1. +LacZ (4d)
2. +TeTxLC#1 (4d)
3. +TeTxLC#2 (4d)
 | 1. +LacZ (10d)
2. +TeTxLC#1 (10d)
3. +TeTxLC#2 (10d)
 | Row (age): <0.0001 | \*\*\*\* |
| Column (genotype): <0.0001 | \*\*\*\* |
| **+TeTxLC#1** | **4d (10), 10d (9)** | Tukey’s multiple comparisons | +LacZ (4d), +TeTxLC#1 (4d) | 0.0013 | \*\* |
| **+TeTxLC#2** | **4d (10), 10d (6)** | +LacZ (4d), +TeTxLC#2 (4d) | 0.7696 | n.s. |
|  | +LacZ (10d), +TeTxLC#1 (10d) | <0.0001 | \*\*\*\* |
| +LacZ (10d), +TeTxLC#2 (10d) | <0.0001 | \*\*\*\* |
| Fig. 3K | **+LacZ** | **10** | One way ANOVA | 1. +LacZ
2. +dTrpA#1
3. +dTrpA#2
4. +dTrpA#3
 | 0.0001 | \*\*\* |
| **+dTrpA#1** | **6** | Tukey’s multiple comparisons | +LacZ, +dTrpA#1 | 0.0964 | n.s. |
| **+dTrpA#2** | **11** | +LacZ, +dTrpA#2 | 0.0008 | \*\*\* |
| **+dTrpA#3** | **10** | +LacZ, +dTrpA#3 | <0.0001 | \*\*\*\* |
| Fig. 3L | **+LacZ** | **10** | One way ANOVA | 1. +LacZ
2. +dTrpA#1
3. +dTrpA#2
4. +dTrpA#3
 | <0.0001 | \*\*\*\* |
| **+dTrpA#1** | **6** | Tukey’s multiple comparisons | +LacZ, +dTrpA#1 | <0.0001 | \*\*\*\* |
| **+dTrpA#2** | **11** | +LacZ, +dTrpA#2 | 0.0033 | \*\* |
| **+dTrpA#3** | **10** | +LacZ, +dTrpA#3 | <0.0001 | \*\*\*\* |
| **Figure 4** |
| Fig. 4C | **+LacZ** | **10** | unpaired t-test | +LacZ, +shits1 (intensity) | 0.0002 | \*\*\* |
| **+shits1** | **8** | unpaired t-test | +LacZ, +shits1 (volume) | <0.0001 | \*\*\*\* |
| Fig. 4F | **+LacZ** | **9** | One way ANOVA | 1. +LacZ
2. +shits1#1
3. +shits1#2
 | 0.0908 | n.s. |
| **+shits1#1** | **8** | Tukey’s multiple comparisons | +LacZ, +shits1#1 | 0.0773 | n.s. |
| **+shits1#2** | **10** | +LacZ, +shits1#2 | 0.6574 | n.s. |
| Fig. 4G | **+LacZ** | **9** | One way ANOVA | 1. +LacZ
2. +shits1#1
3. +shits1#2
 | <0.0001 | \*\*\*\* |
| **+shits1#1** | **8** | Tukey’s multiple comparisons | +LacZ, +shits1#1 | <0.0001 | \*\*\*\* |
| **+shits1#2** | **10** | +LacZ, +shits1#2 | 0.0183 | \* |
| **Figure 5** |
| Fig. 5C | ***drpr +/-* females** | **7d (12), 13d (20)** | Two way ANOVA | 1. *drpr +/-* females (7d)
2. *drpr -/-* females (7d)
3. *drpr +/-* males (7d)
4. *drpr -/-* males (7d)
 | 1. *drpr +/-* females (13d)
2. *drpr -/-* females (13d)
 | Row (age): 0.0002 | \*\*\* |
| Column (genotype): <0.0001 | \*\*\*\* |
| ***drpr -/-* females** | **7d (10), 13d (13)** | Tukey’s multiple comparisons | *drpr +/-* females (7d); *drpr -/-* females (7d) | 0.9368 | n.s. |
| ***drpr +/-* males** | **7d (18)** | *drpr +/-* males (7d); *drpr -/-* males (7d) | 0.1553 | n.s. |
| ***drpr -/-* males** | **7d (6)** | *drpr +/-* females (13d); *drpr -/-* females (13d) | 0.1591 | n.s. |
| Fig. 5D | ***drpr +/-* females** | **7d (12), 13d (20)** | Two way ANOVA | 1. *drpr +/-* females (7d)
2. *drpr -/-* females (7d)
3. *drpr +/-* males (7d)
4. *drpr -/-* males (7d)
 | 1. *drpr +/-* females (13d)
2. *drpr -/-* females (13d)
 | Row (age): 0.9654 | n.s. |
| Column (genotype): <0.0001 | \*\*\*\* |
| ***drpr -/-* females** | **7d (10), 13d (13)** | Tukey’s multiple comparisons | *drpr +/-* females (7d); *drpr -/-* females (7d) | 0.0188 | \* |
| ***drpr +/-* males** | **7d (18)** | *drpr +/-* males (7d); *drpr -/-* males (7d) | 0.0014 | \*\* |
| ***drpr -/-* males** | **7d (6)** | *drpr +/-* females (13d); *drpr -/-* females (13d) | <0.0001 | \*\*\*\* |
| Fig. 5G | ***drpr +/+*** | **1,556** | Unpaired t-test | *drpr +/+*; *drpr -/-* | <0.0001 | \*\*\*\* |
| ***drpr -/-*** | **1,749** |
| **Figure 5 - figure supplement 1** |
| Fig. 5 – fig supp 1C | **+shits1, *drpr +/+*** | **11** | Unpaired t-test | +shits1, *drpr +/+*; +shits1, *drpr -/-* | 0.6555 | n.s. |
| **+shits1, *drpr -/-*** | **8** |
| Fig. 5 – fig supp 1D | **+shits1, *drpr +/+*** | **11** | Unpaired t-test | +shits1, *drpr +/+*; +shits1, *drpr -/-* | <0.0001 | \*\*\*\* |
| **+shits1, *drpr -/-*** | **8** |
| **Figure 5 - figure supplement 2** |
| Fig. 5 – fig supp 2E | **control** | **5** | One way ANOVA | 1. control
2. +repo-Gal80
3. +FFLuc
4. +DrprRNAi
 | 0.0258 | \* |
| **+repo-Gal80** | **6** | Tukey’s multiple comparisons | control; +repo-Gal80 | 0.2665 | n.s. |
| **+FFLuc** | **11** | +FFLuc; +DrprRNAi | 0.0524 | n.s. |
| **+DrprRNAi** | **6** |  |
| Fig. 5 – fig supp 2F | **control** | **5** | One way ANOVA | 1. control
2. +repo-Gal80
3. +FFLuc
4. +DrprRNAi
 | 0.0139 | \* |
| **+repo-Gal80** | **6** | Tukey’s multiple comparisons | control; +repo-Gal80 | 0.4347 | n.s. |
| **+FFLuc** | **11** | +FFLuc; +DrprRNAi | 0.5493 | n.s. |
| **+DrprRNAi** | **6** |  |
| **Figure 5 - figure supplement 3** |
| Fig. 5 – fig supp 3E | **Atg8a** | **12** | One way ANOVA | 1. Atg8a
2. Lamp1
3. mCD8
 | 0.1024 | n.s. |
| **Lamp1** | **12** | Tukey’s multiple comparisons | Atg8a; mCD8 | 0.6955 | n.s. |
| **mCD8** | **10** | Lamp1; mCD8 | 0.4165 | n.s. |
| Fig. 5 – fig supp 3F | **Atg8a** | **12** | One way ANOVA | 1. Atg8a
2. Lamp1
3. mCD8
 | 0.0008 | \*\*\* |
| **Lamp1** | **12** | Tukey’s multiple comparisons | Atg8a; mCD8 | 0.1617 | n.s. |
| **mCD8** | **10** | Lamp1; mCD8 | 0.0508 | n.s. |
| **Figure 6** |
| Fig. 6E | **Httex1Q25, *drpr +/-*** | **6** | One way ANOVA | 1. Httex1Q25*, drpr +/-*
2. Httex1Q91, *drpr +/-*
3. Httex1Q25, *drpr -/-*
4. Httex1Q91, *drpr -/-*
 | <0.0001 | \*\*\*\* |
| **Httex1Q91, *drpr +/-*** | **7** | Tukey’s multiple comparisons | Httex1Q25, *drpr +/-*; Httex1Q91, *drpr +/-* | 0.1584 | n.s. |
| **Httex1Q25, *drpr -/-*** | **6** | Httex1Q25, *drpr -/-*; Httex1Q91, *drpr -/-* | 0.0003 | \*\*\* |
| **Httex1Q91, *drpr -/-*** | **8** | Httex1Q25, *drpr +/-*; Httex1Q25, *drpr -/-* | 0.6955 | n.s. |
|  | Httex1Q91, *drpr +/-*; Httex1Q91, *drpr -/-* | 0.0031 | \*\* |
| Fig. 6J | **+LacZ in ORNs** | **8** | One way ANOVA | 1. +LacZ in ORNs
2. +p35 in ORNs
3. +LacZ in PNs
4. +p35 in PNs
 | 0.0160 | \* |
| **+p35 in ORNs** | **8** | Tukey’s multiple comparisons | +LacZ in ORNs; +p35 in ORNs | 0.9424 | n.s. |
| **+LacZ in PNs** | **7** | +LacZ in PNs; +p35 in PNs | 0.0799 | n.s. |
| **+p35 in PNs** | **7** |  |
| Fig. 6K | **+LacZ in ORNs** | **8** | One way ANOVA | 1. +LacZ in ORNs
2. +p35 in ORNs
3. +LacZ in PNs
4. +p35 in PNs
 | 0.0055 | \*\* |
| **+p35 in ORNs** | **8** | Tukey’s multiple comparisons | +LacZ in ORNs; +p35 in ORNs | 0.0292 | \* |
| **+LacZ in PNs** | **7** | +LacZ in PNs; +p35 in PNs | 0.9129 | n.s. |
| **+p35 in PNs** | **7** |  |
| **Figure 7** |
| Fig. 7I | **control** | **0d (12), 1d (10), 2d (12), 3d (10), 4d (11), 5d (10), 7d (14)** | One way ANOVA | * 1. control (0d, 1d, 2d, 3d, 4d, 5d, 7d)

8. +DrprRNAi (7d) | <0.0001 | \*\*\*\* |
|  | **+DrprRNAi** | **7d (8)** | Tukey’s multiple comparisons | control (0d); control (1d) | 0.1603 | n.s. |
|  |  |  |  | control (0d); control (2d) | <0.0001 | \*\*\*\* |
|  |  |  |  | control (0d); control (3d) | <0.0001 | \*\*\*\* |
|  |  |  |  | control (0d); control (4d) | <0.0001 | \*\*\*\* |
|  |  |  |  | control (0d); control (5d) | <0.0001 | \*\*\*\* |
|  |  |  |  | control (0d); control (7d) | <0.0001 | \*\*\*\* |
|  |  |  |  | control (1d); control (2d) | 0.3062 | n.s. |
|  |  |  |  | control (1d); control (3d) | 0.0008 | \*\*\* |
|  |  |  |  | control (1d); control (4d) | 0.0004 | \*\*\* |
|  |  |  |  | control (1d); control (5d) | 0.1532 | n.s. |
|  |  |  |  | control (1d); control (7d) | 0.0007 | \*\*\* |
|  |  |  |  | control (2d); control (3d) | 0.4286 | n.s. |
|  |  |  |  | control (2d); control (4d) | 0.3373 | n.s. |
|  |  |  |  | control (2d); control (5d) | >0.9999 | n.s. |
|  |  |  |  | control (2d); control (7d) | 0.5489 | n.s. |
|  |  |  |  | control (3d); control (4d) | >0.9999 | n.s. |
|  |  |  |  | control (3d); control (5d) | 0.7851 | n.s. |
|  |  |  |  | control (3d); control (7d) | >0.9999 | n.s. |
|  |  |  |  | control (4d); control (5d) | 0.7090 | n.s. |
|  |  |  |  | control (4d); control (7d) | >0.9999 | n.s. |
|  |  |  |  | control (5d); control (7d) | 0.8919 | n.s. |
|  |  |  |  | control (7d); +DrprRNAi (7d) | <0.0001 | #### |
| Fig. 7J | **control** | **0d (12), 1d (10), 2d (12), 3d (10), 4d (11), 5d (10), 7d (14)** | One way ANOVA | * 1. control (0d, 1d, 2d, 3d, 4d, 5d, 7d)

8. +DrprRNAi (7d) | <0.0001 | \*\*\*\* |
| **+DrprRNAi** | **7d (8)** | Tukey’s multiple comparisons | mCherry+/3xHA+: control (0d); control (1d) | >0.9999 | n.s. |
|  | mCherry+/3xHA+: control (0d); control (2d) | 0.9562 | n.s. |
| mCherry+/3xHA+: control (0d); control (3d) | 0.0004 | \*\*\* |
| mCherry+/3xHA+: control (0d); control (4d) | 0.0535 | n.s. |
| mCherry+/3xHA+: control (0d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+: control (0d); control (7d) | 0.0001 | \*\*\*\* |
| mCherry+/3xHA+: control (1d); control (2d) | 0.9496 | n.s. |
| mCherry+/3xHA+: control (1d); control (3d) | 0.0006 | \*\*\* |
| mCherry+/3xHA+: control (1d); control (4d) | 0.0627 | n.s. |
| mCherry+/3xHA+: control (1d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+: control (1d); control (7d) | 0.0002 | \*\*\* |
| mCherry+/3xHA+: control (2d); control (3d) | 0.0119 | \* |
| mCherry+/3xHA+: control (2d); control (4d) | 0.4239 | n.s. |
| mCherry+/3xHA+: control (2d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+: control (2d); control (7d) | 0.0065 | \*\* |
| mCherry+/3xHA+: control (3d); control (4d) | 0.7531 | n.s. |
| mCherry+/3xHA+: control (3d); control (5d) | 0.6539 | n.s. |
| mCherry+/3xHA+: control (3d); control (7d) | >0.9999 | n.s. |
| mCherry+/3xHA+: control (4d); control (5d) | 0.0293 | \* |
| mCherry+/3xHA+: control (4d); control (7d) | 0.7520 | n.s. |
| mCherry+/3xHA+: control (5d); control (7d) | 0.4856 | n.s. |
| mCherry+/3xHA+: control (7d); +DrprRNAi (7d) | 0.0039 | ## |
| mCherry+/3xHA+/YFP+: control (0d); control (1d) | >0.9999 | n.s. |
| mCherry+/3xHA+/YFP+: control (0d); control (2d) | 0.9986 | n.s. |
| mCherry+/3xHA+/YFP+: control (0d); control (3d) | 0.0070 | \*\* |
| mCherry+/3xHA+/YFP+: control (0d); control (4d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (0d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (0d); control (7d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (1d); control (2d) | 0.9990 | n.s. |
| mCherry+/3xHA+/YFP+: control (1d); control (3d) | 0.0117 | \* |
| mCherry+/3xHA+/YFP+: control (1d); control (4d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (1d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (1d); control (7d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (2d); control (3d) | 0.0332 | \* |
| mCherry+/3xHA+/YFP+: control (2d); control (4d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (2d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (2d); control (7d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (3d); control (4d) | 0.0003 | \*\*\* |
| mCherry+/3xHA+/YFP+: control (3d); control (5d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (3d); control (7d) | <0.0001 | \*\*\*\* |
| mCherry+/3xHA+/YFP+: control (4d); control (5d) | 0.1420 | n.s. |
| mCherry+/3xHA+/YFP+: control (4d); control (7d) | 0.7181 | n.s. |
| mCherry+/3xHA+/YFP+: control (5d); control (7d) | 0.8902 | n.s. |
| mCherry+/3xHA+/YFP+: control (7d); +DrprRNAi (7d) | <0.0001 | #### |