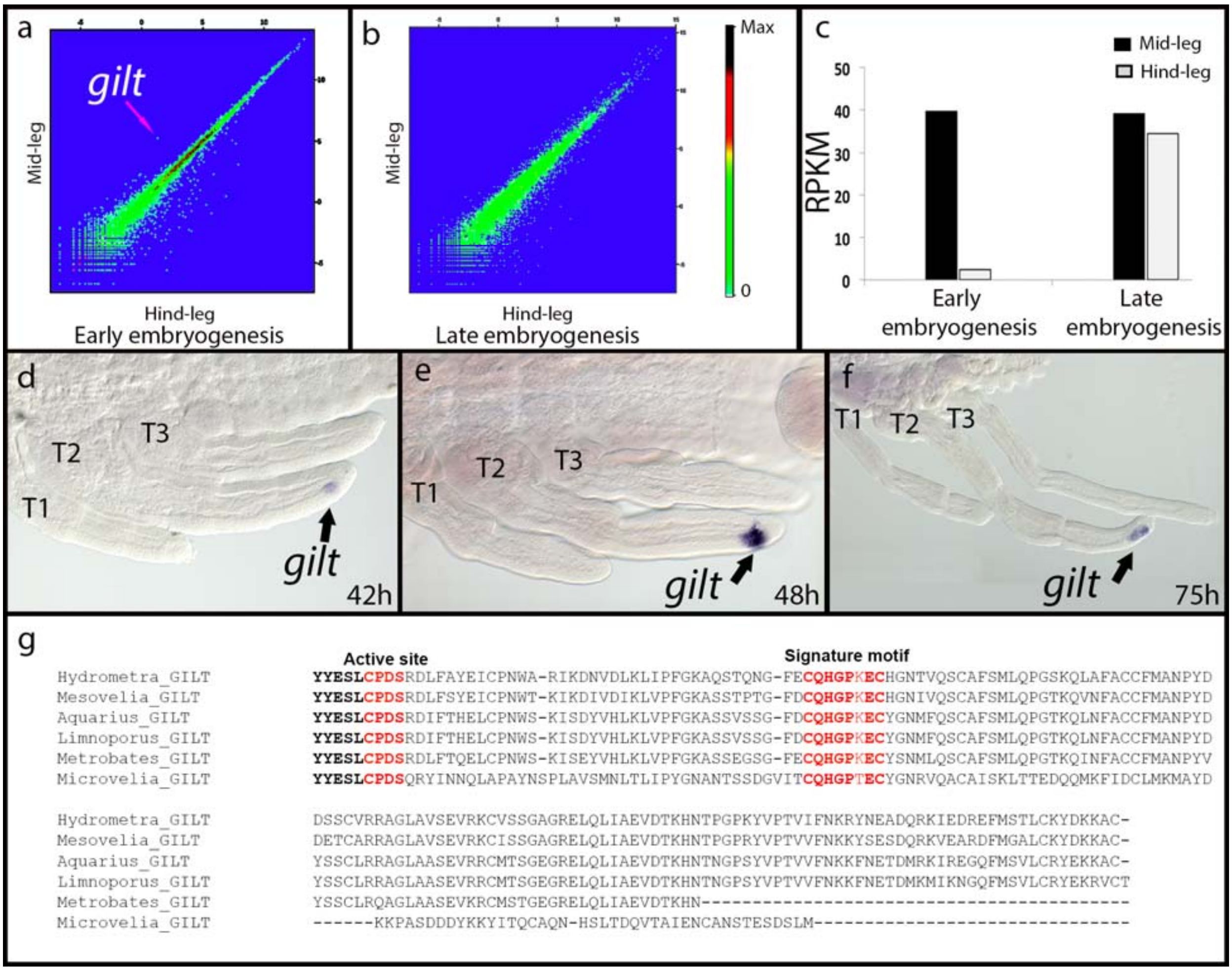
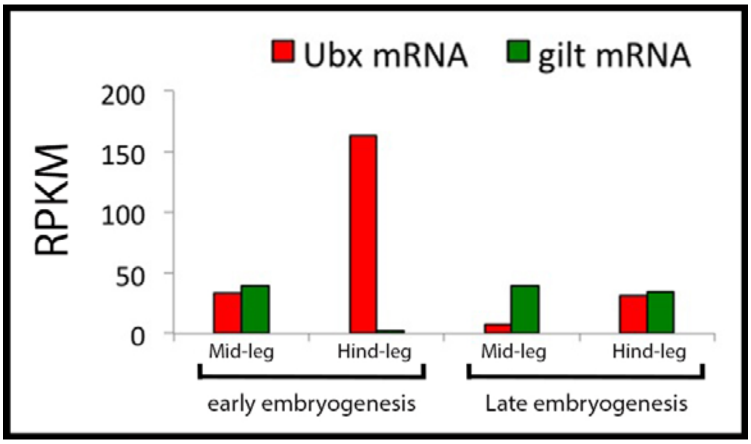
**Supplementary figure 1**



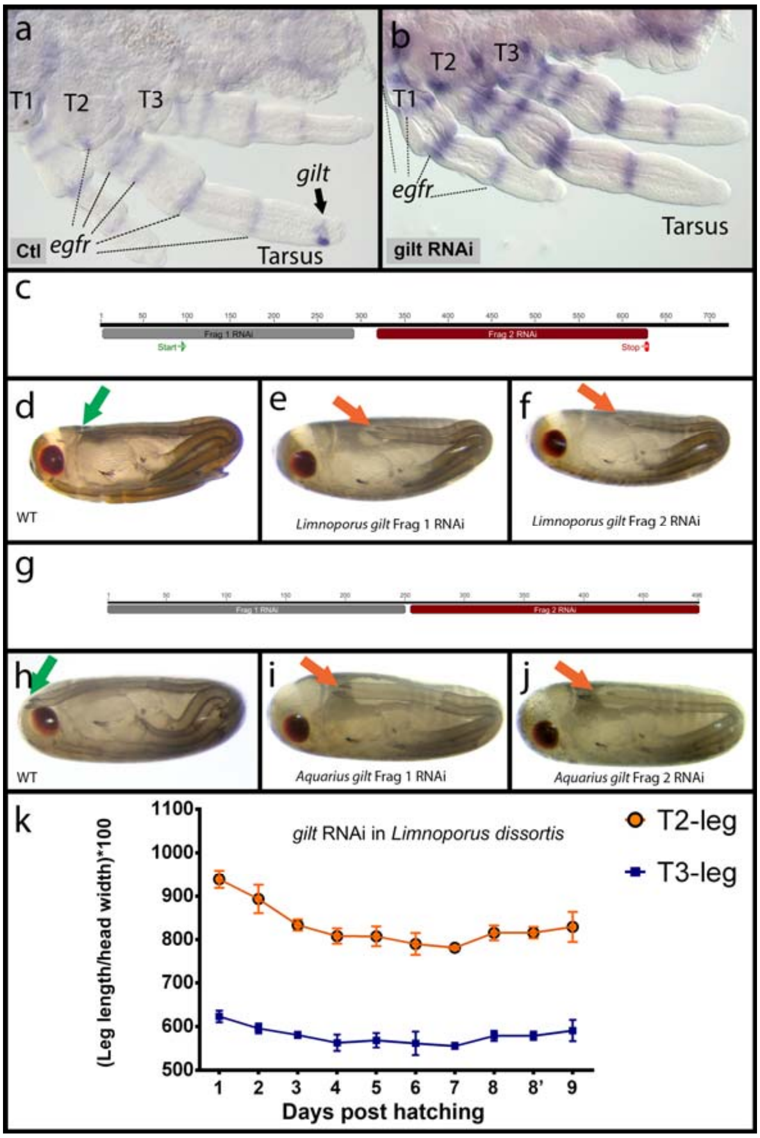

***gilt* expression during various stages of *Limnoporus* embryogenesis.** Comparative transcriptomics between mid-legs and hind-legs extracted from a pool of early (~50% to 75% embryogenesis, **a**) and late (~75% to 100% embryogenesis, **b**) embryos. *gilt* is highly expressed in mid-legs (arrow) in the early pool. (**c**) Levels of *gilt* transcript as reflected by the number of reads per kilobase per million (RPKM). Gilt expression is very high in the mid-legs early, but becomes equally expressed in both legs during late stages. (**d-f**) *gilt* mRNA appears first at 42 hours in the mid-legs, becomes strong at 48 hours, and continues in the mid-legs at 75 hours. We have not been able to detect *gilt* during late developmental stages using in situ hybridization, likely because of difficulties for probes to penetrate the cuticle that is deposited later during embryogenesis. (**g**) Alignment of Gilt protein across the six species of semi-aquatic bugs included in this study. Note the conservation of the active site and Gilt signature motif.

**Supplementary figure 2:**



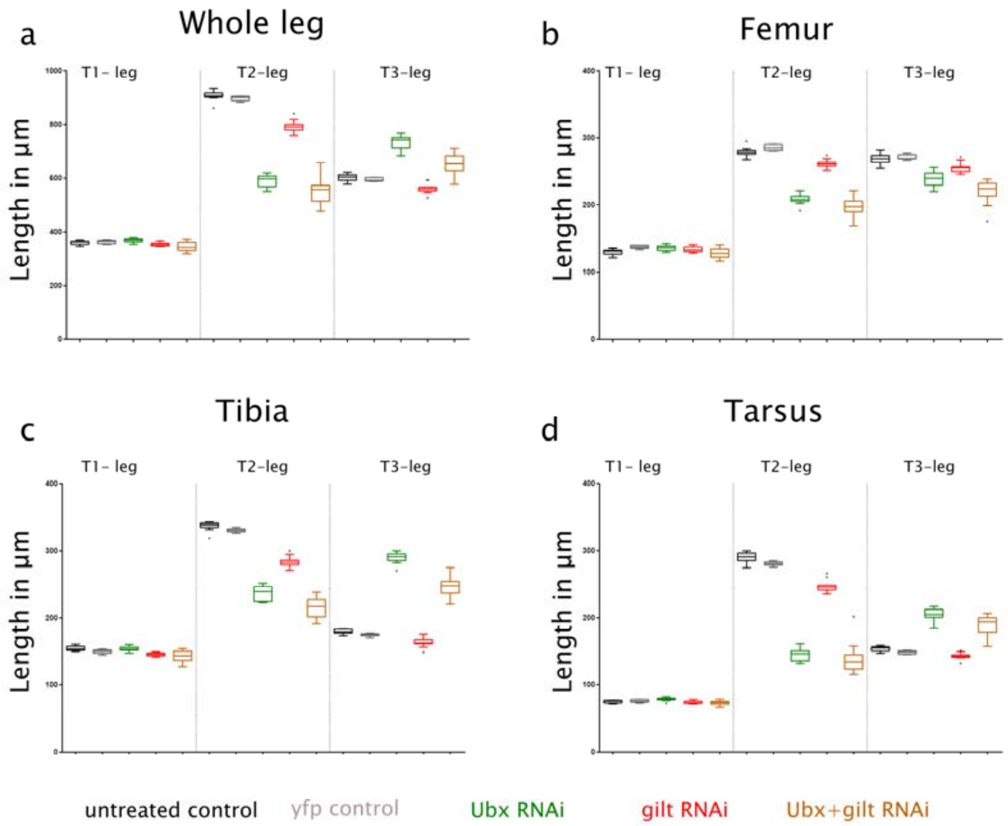

Changes in *gilt* levels (green) in relation with *Ubx* levels (red) as revealed by comparative transcriptomics between mid-legs and hind-legs during early and late embryogenesis. When Ubx level are high, *gilt* levels decrease.

**Supplementary figure 3:**



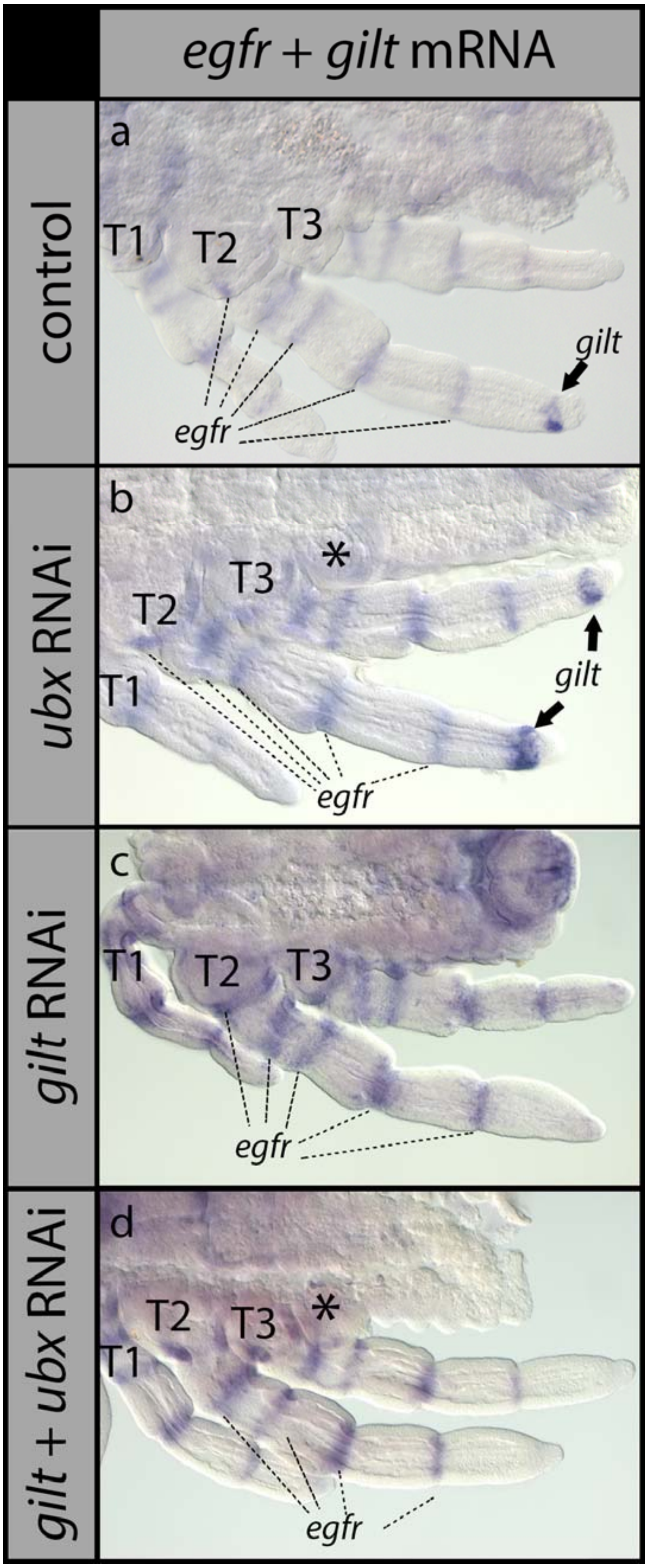

**Controls for the *gilt* RNAi experiment.** (**a**) Control embryo stained with a mix of *gilt* probe and ten times diluted *egfr* probe as an internal control. This probe mix detects *gilt* mRNA unambiguously in mid-leg tarsus and *egfr* mRNA in the boundaries between leg segments[12]. (**b**) *gilt* RNAi embryo stained with the same probe mix, which only detects *egfr* mRNA demonstrating that *gilt* has been successfully depleted. (**c**) A diagram presenting the two non-overlapping fragments of *Limnoporus gilt* used to synthesise double stranded RNA used in RNAi experiments. (**d**) Untreated *Limnoporus dissortis* embryo and (**e-f**) embryos obtained using the two different double stranded RNA regions of *gilt* showing the same phenotype, indicating that different fragments of *gilt* induce the same effect on leg length. (**g-h**) Two separate fragments of *gilt* in another water strider, *Aquarius paludum*, produce the same phenotype as in *Limnoporus dissortis*. (**k**) Dynamics of RNAi efficiency in *Limnoporus dissortis*. The sample size is 4 nymphs for each hatching day and error bars represent Standard Deviation. The first individuals produced after injection of double stranded RNA to the mothers tend to be either wild type or show a subtle phenotype. The strength of the phenotype increases during the following days.

**Supplementary figure 4:**




Tukey box plot showing the effect of *gilt* RNAi (n=12), *Ubx* RNAi (n=13), and *Ubx+gilt* (n=21) double RNAi on leg length and the length of the distal segments of each leg as compared to untreated controls (n=10) and yfp injected negative controls (n=7).

**Supplementary figure 5: Efficiency of *gilt*, *Ubx*, and *gilt+Ubx* RNAi in *Limnoporus* embryos.** (**a**) Control embryo (same as in Fig. S3a) stained with a mix of *gilt* probe and ten times diluted *egfr* probe as an internal control. This probe mix detects *gilt* mRNA unambiguously in mid-leg tarsus and *egfr* mRNA in the boundaries between leg segments[12]. (**b**) *Ubx* RNAi embryo stained with the same mix and showing unambiguous gilt mRNA expression in both mid-legs and hind-legs, along with *egfr* mRNA as an internal control. (c) *gilt* RNAi embryo (different than the one in Fig. S3b), stained with the mix of *gilt* and ten times diluted *egfr* probe, which only detects *egfr* mRNA demonstrating that *gilt* has been successfully depleted. (**d**) A double *gilt+Ubx* RNAi embryo, stained with the mix of *gilt* and ten times diluted *egfr* probe, showing a clear expression of the internal control *egfr* but no expression of *gilt* mRNA neither in the mid-legs or the hind-legs. Note in both *Ubx* RNAi and double *gilt+Ubx* RNAi the formation of an ectopic limb on the first abdominal segment (asterisk)[12].



**Supplementary Table 1:**

| | Video | Duration in micro seconds |
|---|---|---|
| **Halfbeak strike duration** | Halfbeak strike 1 | 24000 |
| | Halfbeak strike 2 | 32500 |
| | Halfbeak strike 3 | 27000 |
| | Halfbeak strike 4 | 30000 |
| | Halfbeak strike 5 | 29000 |
| | Halfbeak strike 6 | 25500 |
| | Halfbeak strike 7 | 35500 |
| | Halfbeak strike 8 | 33000 |
| | Halfbeak strike 9 | 25000 |
| | Halfbeak strike 10 | 26000 |
| | **Average** | **28750** |
| ***Limnoporus* jump duration** | Jump 1 | 30500 |
| | Jump 2 | 29000 |
| | Jump 3 | 27000 |
| | Jump 4 | 27000 |
| | Jump 5 | 32000 |
| | Jump 6 | 29500 |
| | Jump 7 | 28500 |
| | Jump 8 | 29000 |
| | Jump 9 | 26000 |
| | Jump 10 | 30000 |
| | **Average** | **28850** |
| ***Limnoporus* flight duration** | Flight 1 | 112000 |
| | Flight 2 | 152500 |
| | Flight 3 | 96000 |
| | Flight 4 | 131000 |
| | Flight 5 | 124500 |
| | Flight 6 | 126000 |
| | Flight 7 | 145000 |
| | Flight 8 | 110000 |
| | Flight 9 | 107000 |
| | Flight 10 | 144000 |
| | **Average** | **124800** |

Duration of strike in halfbeak fish, jump and flight in adult water striders calculated as an average of ten strikes, jumps and flight events respectively.

**Supplementary table 2:**

| Species | Forward | Reverse |
|---|---|---|
| *Limnoporus dissortis* | AAGCCCCTACTATCAATGCCCAATG | TCAGCAGACTCTCTTCTCGTATCGG |
| *Aquarius paludum* | TACTACGAGTCGCTCTGTCCAGACAGC | CAGCAGACTCTCTTGTCGTATCGGCAGA |
| *Hydrometra stagnorum* | TACTACGAGTCACTTGCCCTGACA | TAGCAGGCCTTTTTGTCGTACTTGC |
| *Metrobates hesperius* | TACTACGAGTCGCTCTGTCCAGACAGC | GTGTTGTGTTTGGTGTCTACTTCAG |
| *Microvelia americana* | TTTGCGGGTTTCTACCAGCACTTT | GCCATGAGAGAATCAGATTCAGTGC |
| *Mesovelia mulsanti* | TACTACGAGTCACTCTGCCCTGACA | TAGCAGGCCTTTTTGTCGTACTTGC |

Primer sequences used to clone *gilt* from the six semi-aquatic bugs species presented in this study.

**Supplementary table 3:**

| | | Forward | Reverse |
|---|---|---|---|
| *Limnoporus dissortis* | complete | taatacgactcactatagggagacca cAAGCCCCTACTATCAATGCCCAATG | M13-R_T7 |
| | Frag 1 | taatacgactcactatagggagacca cAAGCCCCTACTATCAATGCCCAATG | taatacgactcactatagggagacca cCATTCTTTCGGACCATGCTGACA |
| | Frag 2 | taatacgactcactatagggagacca cCTTTCAGCATGCTGCAACCTGG | taatacgactcactatagggagacca cTCAGCAGACTCTCTTCTCGTATCGG |
| *Aquarius paludum* | Frag 1 | taatacgactcactatagggagacca cTACTACGAGTCGCTATGCCCTGACA GC | taatacgactcactatagggagacca cGGTTTGCCATGAAACAGCAGGC |
| | Frag 2 | taatacgactcactatagggagacca cCGACTACAGTTCATGTCTAAGAAG | taatacgactcactatagggagacca cCACAGGCTTTTTTCTCGTACCTGCA |

Primers used to synthesize double stranded RNA used in RNAi experiments in *Limnoporus* and *Aquarius*. These primers are tagged with T7 promoter (small case letters) to enable in vitro transcription using the T7 polymerase enzyme.

# Supplementary table 4:

| | | 1way ANOVA (T1 leg Femur) | Mean 1 | Mean 2 | Mean Diff, | 95% CI of diff, | Significant? | Summary | Adjusted P Value |
|---|---|---|---|---|---|---|---|---|---|
| Fore-legs | Femur | WT vs. Control | 129,9 | 137,1 | -7,191 | -14,52 to 0,1379 | No | ns | 0,0569 |
| | | WT vs. Ubx+GILT | 129,9 | 128,3 | 1,604 | -4,110 to 7,319 | No | ns | 0,9323 |
| | | WT vs. GILT | 129,9 | 133,6 | -3,666 | -10,03 to 2,702 | No | ns | 0,4905 |
| | | WT vs. Ubx | 129,9 | 135,6 | -5,636 | -11,89 to 0,6196 | No | ns | 0,0965 |
| | | Control vs. Ubx+GILT | 137,1 | 128,3 | 8,796 | 2,305 to 15,29 | Yes | ** | 0,003 |
| | | Control vs. GILT | 137,1 | 133,6 | 3,525 | -3,548 to 10,60 | No | ns | 0,6281 |
| | | Control vs. Ubx | 137,1 | 135,6 | 1,555 | -5,417 to 8,527 | No | ns | 0,9699 |
| | | Ubx+GILT vs. GILT | 128,3 | 133,6 | -5,27 | -10,65 to 0,1114 | No | ns | 0,0577 |
| | | Ubx+GILT vs. Ubx | 128,3 | 135,6 | -7,24 | -12,49 to -1,992 | Yes | ** | 0,0024 |
| | | GILT vs. Ubx | 133,6 | 135,6 | -1,97 | -7,924 to 3,984 | No | ns | 0,8834 |
| | Tibia | WT vs. Control | 153,7 | 149,4 | 4,353 | -3,028 to 11,73 | No | ns | 0,4661 |
| | | WT vs. Ubx+GILT | 153,7 | 142,5 | 11,2 | 5,446 to 16,95 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 153,7 | 145,4 | 8,355 | 1,942 to 14,77 | Yes | ** | 0,0047 |
| | | WT vs. Ubx | 153,7 | 153,7 | 0,0245 | -6,275 to 6,324 | No | ns | > 0,9999 |
| | | Control vs. Ubx+GILT | 149,4 | 142,5 | 6,848 | 0,3109 to 13,38 | Yes | * | 0,0356 |
| | | Control vs. GILT | 149,4 | 145,4 | 4,002 | -3,121 to 11,13 | No | ns | 0,5148 |
| | | Control vs. Ubx | 149,4 | 153,7 | -4,328 | -11,35 to 2,693 | No | ns | 0,4208 |
| | | Ubx+GILT vs. GILT | 142,5 | 145,4 | -2,845 | -8,265 to 2,575 | No | ns | 0,5807 |
| | | Ubx+GILT vs. Ubx | 142,5 | 153,7 | -11,18 | -16,46 to -5,890 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 145,4 | 153,7 | -8,33 | -14,33 to -2,335 | Yes | ** | 0,0022 |
| | Tarsus | WT vs. Control | 75,36 | 76,11 | -0,7419 | -4,227 to 2,744 | No | ns | 0,9747 |
| | | WT vs. Ubx+GILT | 75,36 | 73,31 | 2,056 | -0,6619 to 4,773 | No | ns | 0,2217 |
| | | WT vs. GILT | 75,36 | 74,03 | 1,332 | -1,697 to 4,360 | No | ns | 0,7293 |
| | | WT vs. Ubx | 75,36 | 78,77 | -3,404 | -6,379 to -0,4289 | Yes | * | 0,0172 |
| | | Control vs. Ubx+GILT | 76,11 | 73,31 | 2,797 | -0,2895 to 5,884 | No | ns | 0,0934 |
| | | Control vs. GILT | 76,11 | 74,03 | 2,074 | -1,290 to 5,437 | No | ns | 0,4208 |
| | | Control vs. Ubx | 76,11 | 78,77 | -2,662 | -5,978 to 0,6538 | No | ns | 0,1728 |
| | | Ubx+GILT vs. GILT | 73,31 | 74,03 | -0,7237 | -3,283 to 1,836 | No | ns | 0,9307 |
| | | Ubx+GILT vs. Ubx | 73,31 | 78,77 | -5,459 | -7,955 to -2,963 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 74,03 | 78,77 | -4,736 | -7,567 to -1,904 | Yes | *** | 0,0002 |
| | Total | WT vs. Control | 359,5 | 362,6 | -3,073 | -19,05 to 12,90 | No | ns | 0,9825 |
| | | WT vs. Ubx+GILT | 359,5 | 344,1 | 15,37 | 2,911 to 27,82 | Yes | ** | 0,0084 |
| | | WT vs. GILT | 359,5 | 353 | 6,528 | -7,354 to 20,41 | No | ns | 0,6776 |
| | | WT vs. Ubx | 359,5 | 368 | -8,508 | -22,15 to 5,129 | No | ns | 0,4084 |
| | | Control vs. Ubx+GILT | 362,6 | 344,1 | 18,44 | 4,291 to 32,59 | Yes | ** | 0,0046 |
| | | Control vs. GILT | 362,6 | 353 | 9,601 | -5,818 to 25,02 | No | ns | 0,4105 |
| | | Control vs. Ubx | 362,6 | 368 | -5,435 | -20,63 to 9,764 | No | ns | 0,8512 |
| | | Ubx+GILT vs. GILT | 344,1 | 353 | -8,839 | -20,57 to 2,893 | No | ns | 0,2252 |
| | | Ubx+GILT vs. Ubx | 344,1 | 368 | -23,88 | -35,32 to -12,43 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 353 | 368 | -15,04 | -28,01 to -2,057 | Yes | * | 0,0154 |
| Mid-legs | Femur | WT vs. Control | 279,1 | 285,9 | -6,752 | -19,53 to 6,026 | No | ns | 0,5745 |
| | | WT vs. Ubx+GILT | 279,1 | 197,9 | 81,15 | 71,19 to 91,12 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 279,1 | 262 | 17,08 | 5,977 to 28,18 | Yes | *** | 0,0006 |
| | | WT vs. Ubx | 279,1 | 208,2 | 70,93 | 60,02 to 81,84 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 285,9 | 197,9 | 87,91 | 76,59 to 99,22 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 285,9 | 262 | 23,83 | 11,50 to 36,16 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx | 285,9 | 208,2 | 77,68 | 65,53 to 89,84 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 197,9 | 262 | -64,07 | -73,46 to -54,69 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 197,9 | 208,2 | -10,22 | -19,37 to -1,072 | Yes | * | 0,0212 |
| | | GILT vs. Ubx | 262 | 208,2 | 53,85 | 43,47 to 64,23 | Yes | **** | < 0,0001 |
| | Tibia | WT vs. Control | 335,8 | 330,8 | 5,018 | -10,02 to 20,05 | No | ns | 0,8802 |
| | | WT vs. Ubx+GILT | 335,8 | 214,9 | 120,9 | 109,2 to 132,7 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 335,8 | 283,5 | 52,34 | 39,28 to 65,41 | Yes | **** | < 0,0001 |
| | | WT vs. Ubx | 335,8 | 236,8 | 99,06 | 86,22 to 111,9 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 330,8 | 214,9 | 115,9 | 102,6 to 129,2 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 330,8 | 283,5 | 47,33 | 32,82 to 61,84 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx | 330,8 | 236,8 | 94,04 | 79,73 to 108,3 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 214,9 | 283,5 | -68,59 | -79,63 to -57,55 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 214,9 | 236,8 | -21,88 | -32,65 to -11,12 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 283,5 | 236,8 | 46,71 | 34,50 to 58,92 | Yes | **** | < 0,0001 |
| | Tarsus | WT vs. Control | 289,1 | 280,5 | 8,649 | -9,181 to 26,48 | No | ns | 0,6517 |
| | | WT vs. Ubx+GILT | 289,1 | 137,3 | 151,8 | 137,9 to 165,7 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 289,1 | 247,3 | 41,88 | 26,39 to 57,37 | Yes | **** | < 0,0001 |
| | | WT vs. Ubx | 289,1 | 144,4 | 144,7 | 129,5 to 160,0 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 280,5 | 137,3 | 143,2 | 127,4 to 159,0 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 280,5 | 247,3 | 33,23 | 16,02 to 50,44 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx | 280,5 | 144,4 | 136,1 | 119,1 to 153,0 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 137,3 | 247,3 | -110 | -123,0 to -96,86 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 137,3 | 144,4 | -7,102 | -19,87 to 5,666 | No | ns | 0,5248 |
| | | GILT vs. Ubx | 247,3 | 144,4 | 102,9 | 88,37 to 117,3 | Yes | **** | < 0,0001 |
| | Total | WT vs. Control | 904,1 | 897,2 | 6,915 | -34,28 to 48,11 | No | ns | 0,9895 |
| | | WT vs. Ubx+GILT | 904,1 | 550,1 | 353,9 | 321,8 to 386,0 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 904,1 | 792,8 | 111,3 | 75,51 to 147,1 | Yes | **** | < 0,0001 |
| | | WT vs. Ubx | 904,1 | 589,4 | 314,7 | 279,6 to 349,9 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 897,2 | 550,1 | 347 | 310,5 to 383,5 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 897,2 | 792,8 | 104,4 | 64,63 to 144,1 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx | 897,2 | 589,4 | 307,8 | 268,6 to 347,0 | Yes | **** | < 0,0001 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Ubx+GILT vs. GILT | 550,1 | 792,8 | -242,6 | -272,9 to -212,4 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 550,1 | 589,4 | -39,21 | -68,71 to -9,707 | Yes | ** | 0,0037 |
| | | GILT vs. Ubx | 792,8 | 589,4 | 203,4 | 169,9 to 236,9 | Yes | **** | < 0,0001 |
| Hind-legs | Femur | WT vs. Control | 268,5 | 271,5 | -3,009 | -18,55 to 12,53 | No | ns | 0,9821 |
| | | WT vs. Ubx+GILT | 268,5 | 220 | 48,55 | 36,43 to 60,66 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 268,5 | 255,9 | 12,64 | -0,8627 to 26,14 | No | ns | 0,077 |
| | | WT vs. Ubx | 268,5 | 239,2 | 29,29 | 16,03 to 42,55 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 271,5 | 220 | 51,56 | 37,80 to 65,32 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 271,5 | 255,9 | 15,65 | 0,6513 to 30,64 | Yes | * | 0,0367 |
| | | Control vs. Ubx | 271,5 | 239,2 | 32,3 | 17,52 to 47,08 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 220 | 255,9 | -35,91 | -47,32 to -24,50 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 220 | 239,2 | -19,26 | -30,39 to -8,130 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 255,9 | 239,2 | 16,65 | 4,030 to 29,28 | Yes | ** | 0,0041 |
| | Tibia | WT vs. Control | 178,7 | 174 | 4,692 | -9,355 to 18,74 | No | ns | 0,8799 |
| | | WT vs. Ubx+GILT | 178,7 | 248,6 | -69,85 | -80,80 to -58,90 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 178,7 | 163 | 15,66 | 3,456 to 27,87 | Yes | ** | 0,0055 |
| | | WT vs. Ubx | 178,7 | 289,8 | -111,1 | -123,1 to -99,08 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 174 | 248,6 | -74,54 | -86,98 to -62,10 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 174 | 163 | 10,97 | -2,587 to 24,53 | No | ns | 0,1668 |
| | | Control vs. Ubx | 174 | 289,8 | -115,8 | -129,1 to -102,4 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 248,6 | 163 | 85,51 | 75,20 to 95,83 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 248,6 | 289,8 | -41,22 | -51,28 to -31,16 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 163 | 289,8 | -126,7 | -138,1 to -115,3 | Yes | **** | < 0,0001 |
| | Tarsus | WT vs. Control | 153,1 | 148,4 | 4,713 | -8,410 to 17,84 | No | ns | 0,8493 |
| | | WT vs. Ubx+GILT | 153,1 | 188,5 | -35,39 | -45,62 to -25,15 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 153,1 | 142,6 | 10,5 | -0,8973 to 21,91 | No | ns | 0,0848 |
| | | WT vs. Ubx | 153,1 | 204,9 | -51,83 | -63,03 to -40,63 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 148,4 | 188,5 | -40,1 | -51,72 to -28,48 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 148,4 | 142,6 | 5,792 | -6,873 to 18,46 | No | ns | 0,6998 |
| | | Control vs. Ubx | 148,4 | 204,9 | -56,55 | -69,03 to -44,06 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 188,5 | 142,6 | 45,89 | 36,25 to 55,53 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 188,5 | 204,9 | -16,45 | -25,84 to -7,050 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 142,6 | 204,9 | -62,34 | -73,00 to -51,68 | Yes | **** | < 0,0001 |
| | Total | WT vs. Control | 600,3 | 594 | 6,395 | -31,17 to 43,96 | No | ns | 0,989 |
| | | WT vs. Ubx+GILT | 600,3 | 657 | -56,69 | -85,97 to -27,40 | Yes | **** | < 0,0001 |
| | | WT vs. GILT | 600,3 | 561,5 | 38,8 | 6,168 to 71,44 | Yes | * | 0,012 |
| | | WT vs. Ubx | 600,3 | 734 | -133,6 | -165,7 to -101,6 | Yes | **** | < 0,0001 |
| | | Control vs. Ubx+GILT | 594 | 657 | -63,08 | -96,35 to -29,82 | Yes | **** | < 0,0001 |
| | | Control vs. GILT | 594 | 561,5 | 32,41 | -3,842 to 68,66 | No | ns | 0,1008 |
| | | Control vs. Ubx | 594 | 734 | -140 | -175,7 to -104,3 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. GILT | 657 | 561,5 | 95,49 | 67,91 to 123,1 | Yes | **** | < 0,0001 |
| | | Ubx+GILT vs. Ubx | 657 | 734 | -76,92 | -103,8 to -50,02 | Yes | **** | < 0,0001 |
| | | GILT vs. Ubx | 561,5 | 734 | -172,4 | -202,9 to -141,9 | Yes | **** | < 0,0001 |

**Supplementary table 4:** Statistical analyses and significance of the effect of various RNAi experiments on leg length.

Statistical analyses and significance of the effect of various RNAi experiments on leg length.

**Supplementary table 5:**

| 1way ANOVA (Jumps) | Mean 1 | Mean 2 | Mean Diff, | 95% CI of diff, | Significant? | Summary | Adjusted P Value |
|---|---|---|---|---|---|---|---|
| WT vs. M-*gilt* | 5,050 | 4,200 | 0,8500 | 0,4261 to 1,274 | Yes | **** | < 0,0001 |
| WT vs. M-N_*gilt* | 5,050 | 4,050 | 1,000 | 0,5544 to 1,446 | Yes | **** | < 0,0001 |
| M-*gilt* vs. M-N-*gilt* | 4,200 | 4,050 | 0,1500 | -0,2739 to 0,5739 | No | ns | 0,7859 |

One-way ANOVA analyses and significance of the effect of *gilt* RNAi on the jump performance.