

Additional data file 3 - Table I**One-way ANOVA comparing expression ratios of XX;AA
(*otu*¹/*otu*¹⁷) vs. X;AA (*hs-tra*+/+) transformed ovaries.**

| ANOVA cell 1 | ANOVA cell 2 | ANOVA cell 3 |
|-------------------------------|------------------|------------------|
| pooled (<i>Dp</i> +/+)/(+/+) | pooled AA/AA | XX/X |
| 1.5-fold gene dose | 1-fold gene dose | 2-fold gene dose |

| Pair-wise comparisons | Mean expression ratio difference and 95% CI |
|----------------------------------|------------------------------------------------|
| (<i>Dp</i> +/+)/(+/+) vs. AA/AA | 0.4530 [0.4217, 0.4842] |
| (<i>Dp</i> +/+)/(+/+) vs. XX/X | 0.2808 [0.2496, 0.3121] |
| XX/X vs. AA/AA | 0.1722 [0.1409, 0.2034] |

(CI) Tukey HSD procedure confidence interval.

Additional data file 3 - Table 2

One-way ANOVA comparing expression ratios of XX;AA (*Sxl*^{f53}/*Sxl*⁷⁸⁰) vs. X;AA (*hs-tra*+/+) transformed ovaries.

| ANOVA cell 1 | ANOVA cell 2 | ANOVA cell 3 |
|-------------------------------|------------------|------------------|
| pooled (<i>Dp</i> +/+)/(+/+) | pooled AA/AA | XX/X |
| 1.5-fold gene dose | 1-fold gene dose | 2-fold gene dose |

| Pair-wise comparisons | Mean expression ratio difference and 95% CI |
|----------------------------------|------------------------------------------------|
| (<i>Dp</i> +/+)/(+/+) vs. AA/AA | 0.4290 [0.3961, 0.4619] |
| (<i>Dp</i> +/+)/(+/+) vs. XX/X | 0.3069 [0.2740, 0.3398] |
| XX/X vs. AA/AA | 0.1221 [0.0892, 0.1551] |

(CI) Tukey HSD procedure confidence interval.

Additional data file 3 - Table 3**One-way ANOVA comparing expression ratios of XX;AA
(wildtype) ovaries vs. X;AA (wildtype) testes.**

| ANOVA cell 1 | ANOVA cell 2 | ANOVA cell 3 |
|-------------------------|------------------|------------------|
| pooled ($Dp/+)/(+/+$) | pooled AA/AA | XX/X |
| 1.5-fold gene dose | 1-fold gene dose | 2-fold gene dose |

| Pair-wise comparisons | Mean expression ratio difference and 95% CI |
|----------------------------|------------------------------------------------|
| ($Dp/+)/(+/+$) vs. AA/AA | 0.4530 [0.4073, 0.4987] |
| ($Dp/+)/(+/+$) vs. XX/X | 0.0319 [-0.0138, 0.0776] |
| XX/X vs. AA/AA | 0.4211 [0.3754, 0.4668] |

(CI) Tukey HSD procedure confidence interval.

Additional data file 3 - Table 4

One-way ANOVA for intensities from transformed **X;AA hs-tra ovaries**.

| ANOVA cell 1 | ANOVA cell 2 | ANOVA cell 3 |
|---------------|--------------------|--------------|
| Df/+ (1-copy) | Autosomal (2-copy) | X (1-copy) |

| Pair-wise comparison | Mean intensity difference and 95% CI |
|----------------------|--------------------------------------|
| Df/+ vs. AA | -0.7058 [-0.8793, -0.5324] |
| Df/+ vs. X | -0.8740 [-1.0475, -0.7006] |
| X vs. AA | 0.1682 [0.0053, 0.3416] |

(CI) Tukey HSD procedure confidence interval.

Additional data file 3 - Table 5

One-way ANOVA for intensities from X;AA wildtype testes

| ANOVA cell 1 | ANOVA cell 2 | ANOVA cell 3 |
|---------------|--------------------|--------------|
| Df/+ (1-copy) | Autosomal (2-copy) | X (1-copy) |

| Pair-wise comparison | Mean intensity difference and 95% CI |
|----------------------|--------------------------------------|
| Df/+ vs. AA | -0.6785 [-0.8558, -0.5012] |
| Df/+ vs. X | -0.7449 [-0.9222, -0.5676] |
| X vs. AA | -0.0664 [-0.2437, 0.1109] |

(CI) Tukey HSD procedure confidence interval.

Additional data file 3 - Table 6

One-way ANOVA comparing hybridization intensities from *C. elegans* or mouse soma

| ANOVA cell 1 | ANOVA cell 2 |
|--------------------|-----------------------|
| Autosomal (2-copy) | X chromosome (1-copy) |

| Tissue | Pair-wise comparison | Mean intensity difference and 95% CI |
|------------------------|----------------------|-----------------------------------------|
| <i>C. elegans</i> soma | X vs. AA | 0.3933 [0.3547, 0.4320] |
| Mouse soma | X vs. AA | -0.1704 [-0.3128, 0.0280] |
| | Chromosome 6 vs. AA | -0.2919 [-0.4029, -0.1809] |

(CI) Tukey HSD procedure confidence interval.