

1. What hypothesis is addressed in the Sun et al paper?
2. What is X-chromosome inactivation? Why does it occur?

What is known about the analogous process in *Drosophila*?

3. For what is each of the following techniques used, and what is the underlying principle?
RNAse protection

Equivalence point assays

Nuclear run on

RNA half-life experiments

Methylation-sensitive restriction analysis

ChIP analysis

4. What was the major conclusion of this paper? If you agree with this conclusion, what one figure was most compelling? If you disagreed with the conclusion, what one figure was the most important in suggesting an erroneous conclusion? Continue over the page.