



Figure 7. Interchromosomal interactions between Xics during early embryonic development. During early stages of embryonic stem (ES) cell differentiation, the two X chromosomes are highly mobile, possibly to allow pairing of the two Xics. During this pairing stage, through a process still largely unknown, one of the two X chromosomes will down-regulate expression of Tsix, a negative regulator of the Xist RNA gene. On that chromosome, Xist will be expressed and Xist RNA will accumulate resulting in X-inactivation. The other X chromosome will continue to express Tsix and the chromosome will remain active. (Redrawn, with permission, from Masui et al. 2011, © Elsevier.)