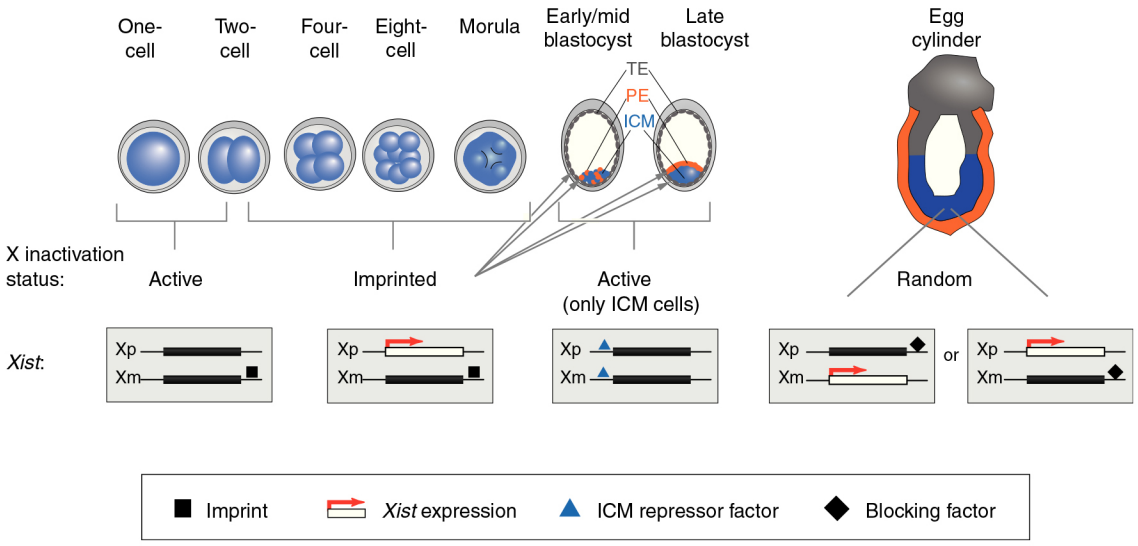


**Figure 6.** *Xist* gene regulation in early development. The figure illustrates current knowledge and models for imprinted and random *Xist* regulation in early XX mouse embryos. The Xm *Xist* allele arrives in the zygote with a repressive imprint possibly mediated through the antisense *Tsix* locus (black square). The Xp *Xist* allele is primed to be active and is expressed as soon as embryonic gene activation occurs at the two-cell stage. From the two- to four-cell stage up until morula stage, Xp *Xist* is expressed in all cells (expression indicated by open rectangle and arrow at 5′ end). This pattern is maintained at the early blastocyst stage and subsequently in TE and PE cells and their fully differentiated derivative (extraembryonic) tissues. In the late blastocyst, ICM *Xist* expression is extinguished, possibly by an ICM-specific repressor factor (blue triangle). *Xist* expression then commences subsequently at the time of gastrulation. Here, the blocking factor (black diamond) ensures that *Xist* expression cannot occur on one of the two alleles (counting).