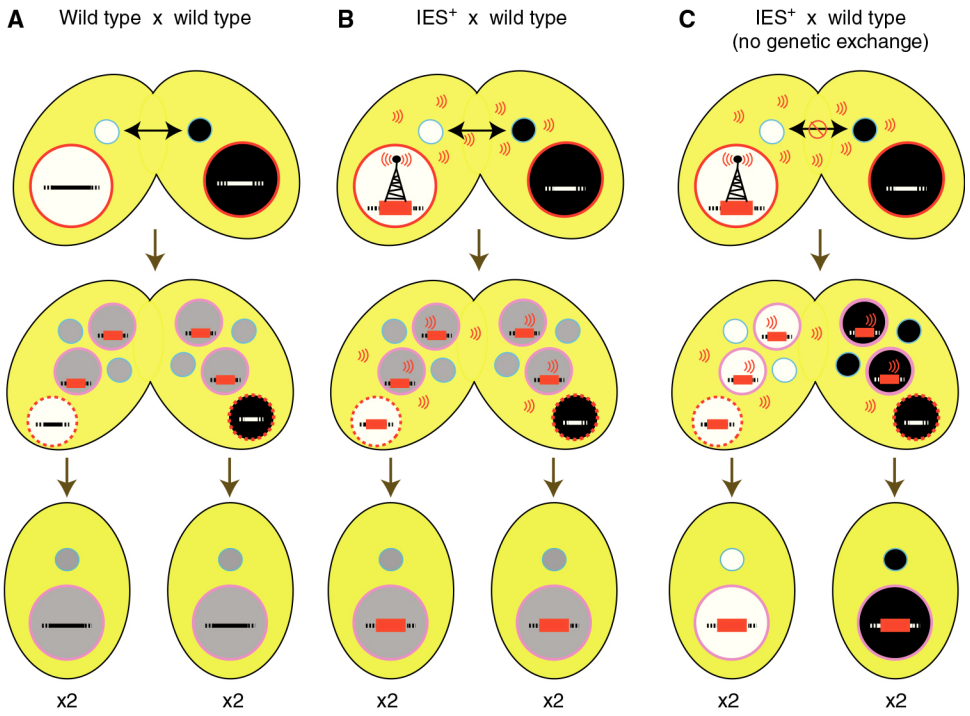

Figure 6. Inhibition of IES excision by the parental macronucleus is mediated by factors transmitted through the cytoplasm. (*A*) During macronuclear differentiation following mating of wild-type cells, IESs (e.g., the red bar) are excised efficiently; however, (*B*) the presence of an IES (IES$^+$) in the maternal macronucleus of one partner can signal its presence (depicted by radio tower emissions) to the developing macronuclei within both partners, inhibiting excision of the homologous IESs in all four resulting progeny. (*C*) The IES$^+$ maternal macronucleus can inhibit IES excision in its wild-type mating partner even when genetic exchange is blocked.