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Rapid evolution of a Y-chromosome heterochromatin protein underlies sex chromosome meiotic drive

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Segregation distorters are genetic systems where a chromosome is preferentially transmitted at the expense of its homolog. In *Drosophila simulans*, the Paris Sex Ratio system induces the almost systematic elimination of spermatids bearing a Y chromosome during male meiosis, resulting in female biased progeny. A collaborative work involving the groups of Catherine Montchamp-Moreau (EGCE - Univ. Paris-Sud), Benjamin Prudhomme (IBDM - Marseille) and Benjamin Loppin (LBBE) has recently shown that a rapidly evolving heterochromatin protein controls the fate of the Y-chromosome in this classical distorter system.

Rapid evolution of a Y-chromosome heterochromatin protein underlies sex chromosome meiotic drive, Quentin Helleu, Pierre R. Gérard, Raphaëlle Dubruille, David Ogereau, Benjamin Prud'homme, Benjamin Loppin et Catherine Montchamp-Moreau, PNAS 113(15), 4110–4115, 2016.