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| --- | --- | --- | --- | --- | --- |
| Model | **Broad Scale**  **Typical Landscape**  **Male telomere bias,**  **Female uniform** | Longer DNA loops -> Strong interference  Male > Female interference strength | Within mouse variance for CO number  Female > Male within mouse variance | Reverse heterochiasmy direction  Male > Female genome-wide recombination rate | Positive correlation interference strength and CO number |
| Gamete selection  Trivers  (Lenormand and Dutheil, 2005) | ?  (not sure how to distinguish from SACE predictions) | Yes  (stronger interference results in fewer Cos) | Yes  (strong selection in males reduces between cell variance) | No  (males should evolve to be lower) | No  (predictions don’t apply to chromosome level) |
| S.A.C.E.  Sexual Antagonism Cis Epistasis  (Sardell and Kirkpatrick, 2020) | Yes  (male large blocks result with strong telomere bias) | Yes  (stronger interference results in larger blocks for males) | Maybe  (strong selection in males reduces between cell variance) | Yes? | No? |
| Two locus modifier  (protection against meiotic drive systems)  (Brandvain and Coop, 2012) | Yes  Females generally higher RR and COs closer to centromeres. | Yes  (prediction of weaker interference in females) | Yes  More variance between oocytes to reduce effectiveness of centromere drive. |  | No  Predictions don’t apply to Rec landscape |
| Stricter Spindle Assembly Checkpoint in males: | Yes  Telomere position maximizes sister cohesion with tension. | Yes  Weak interference makes more variance across landscape. | Yes  Relaxed selection on SAC would increases variance across cells. |  | Yes,  If spindle reads |
| COM  hulten |  |  |  |  |  |
| (differences in PGS pool) |  |  |  |  |  |

**References:**

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3. Sardell JM, Kirkpatrick M (2020). Sex Differences in the Recombination Landscape. *Am Nat* **195**: 361–379.
4. Hultén, Maj A. "On the origin of crossover interference: A chromosome oscillatory movement (COM) model." Molecular cytogenetics 4.1 (2011): 10.