**Table S3 Cytological count data.** Virgin *FM7*, y w B / y w;  $ald^{Excision} / Df(3R)AN6$ ; pol females were aged for 4 days post eclosion with yeast and no males, and Immuno-FISH labeled oocytes were scored for metaphase arrested chromosome coorientation. "Heterologous" segregation is when both X homologs segregate away from both As, while "Non-Heterologous" segregation is when all X and A homologs go to the same pole. Note that the order of columns here corresponds to the order of columns in Table S2, which are further divided depending on which pole becomes the egg pronucleus and the sperm genotype.

	Normal Coorientation	4-only Malorientation	X-only Malorientation	X-4 Heterologous	X-4 Non- Heterologous
Line	X4 ⇔ X4	X44 ⇔ X	XX4 ⇔ 4	XX ⇔ 44	$XX44 \Leftrightarrow \emptyset$
1	160	13	19	9	3
4	178	8	21	10	1
14	192	10	17	10	2
15	175	9	13	5	2
23	103	35	44	19	13
25	201	0	0	0	0
26	193	12	22	15	8
30	178	4	16	6	2