



**Figure S3** Two-locus haplotype probabilities, as a function of recombination fraction, for a random autosome haplotype (left column), a random X chromosome haplotype from the female (middle column), and the male X chromosome haplotype (right column) at generation  $F_k$  in the production of four-way RIL by sibling mating, with the individual curves corresponding to different values of  $k$ .