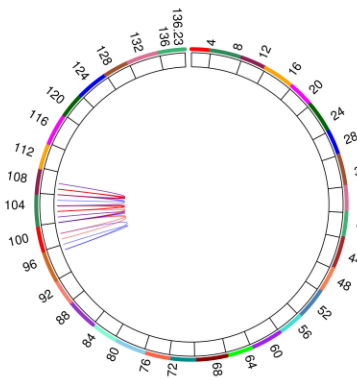
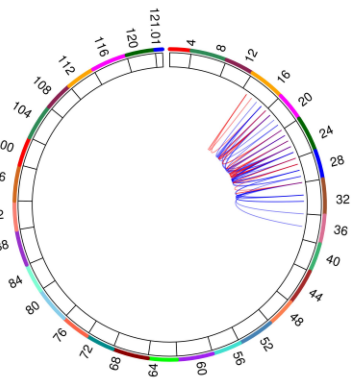


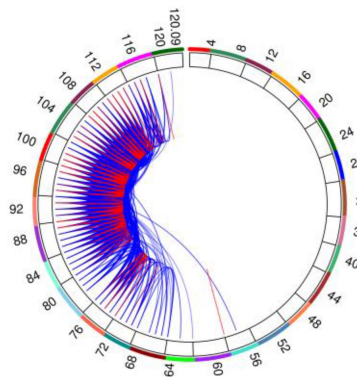
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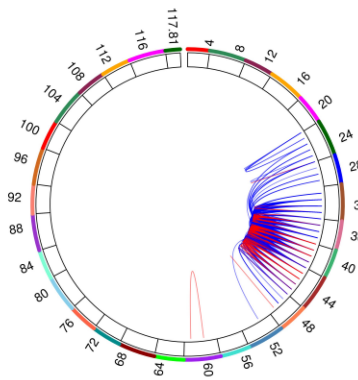
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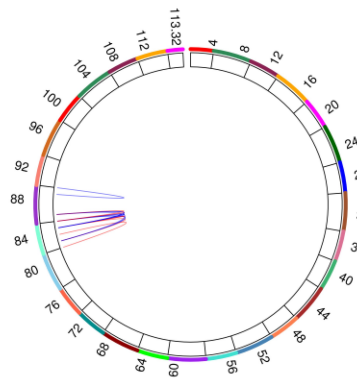
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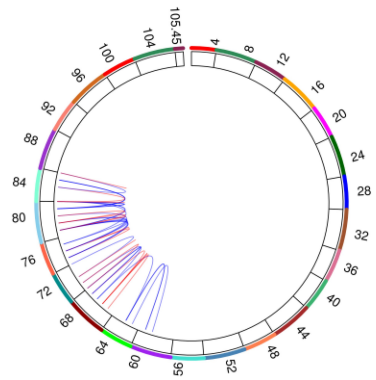
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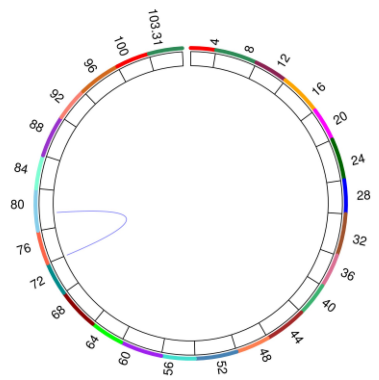
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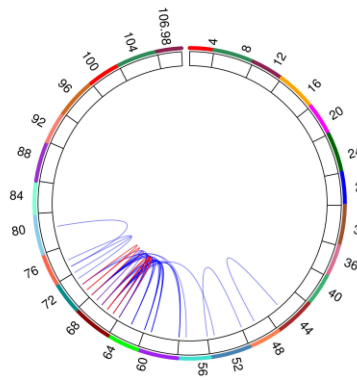
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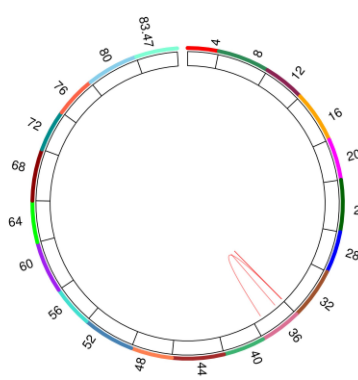
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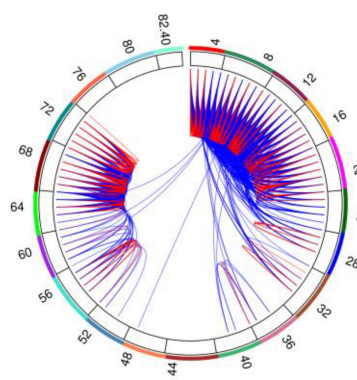
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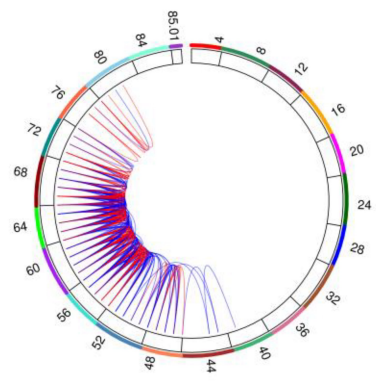
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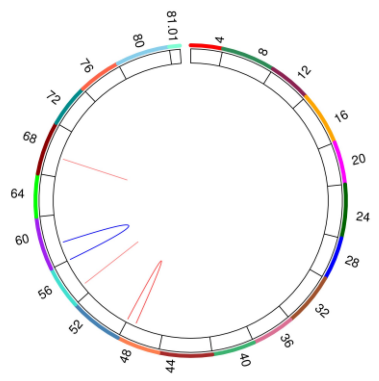
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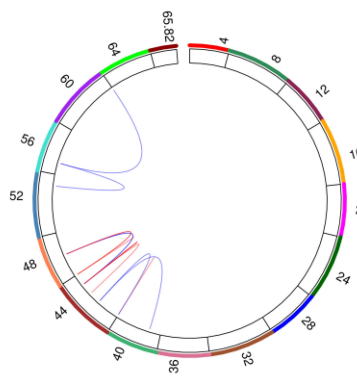
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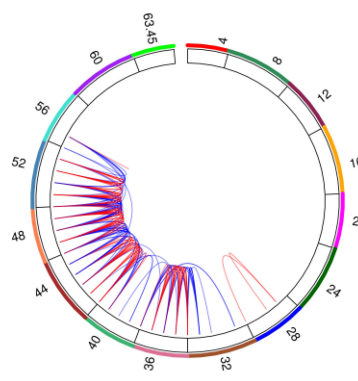
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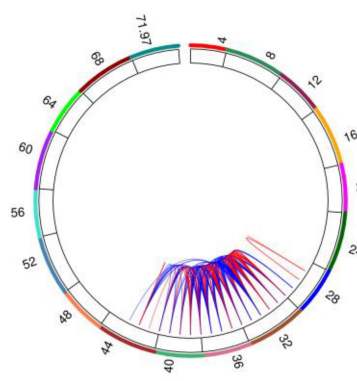
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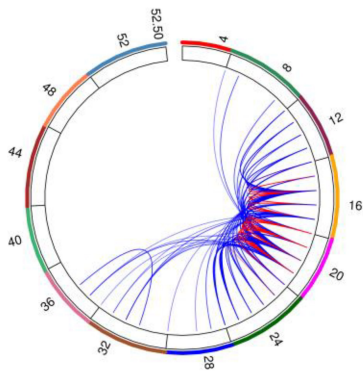
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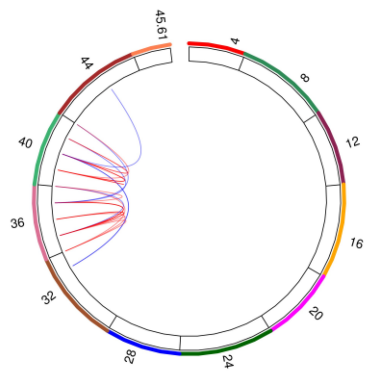
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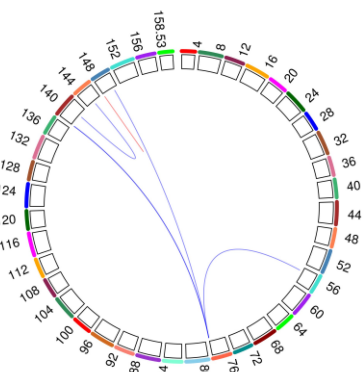
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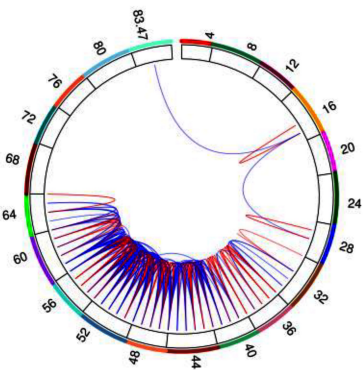
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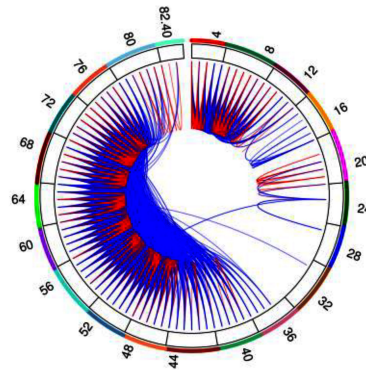
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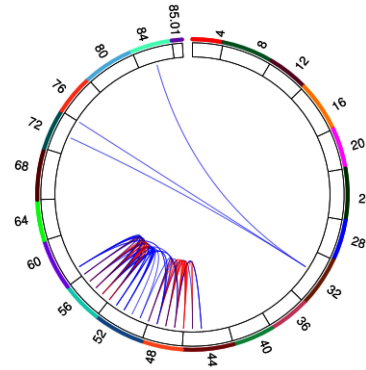
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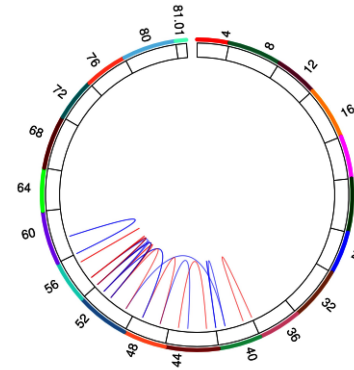
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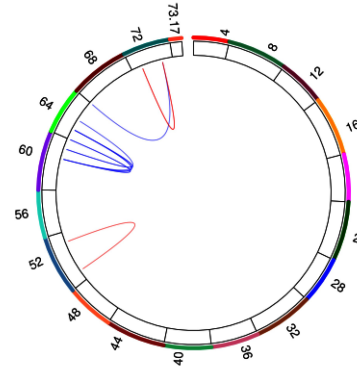
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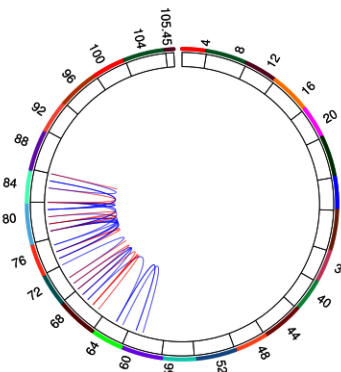
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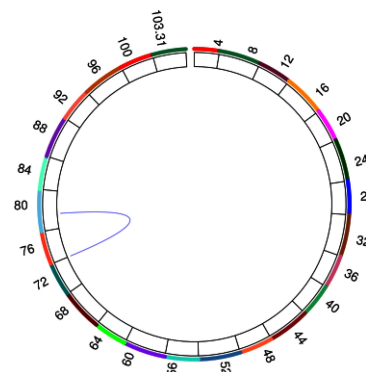
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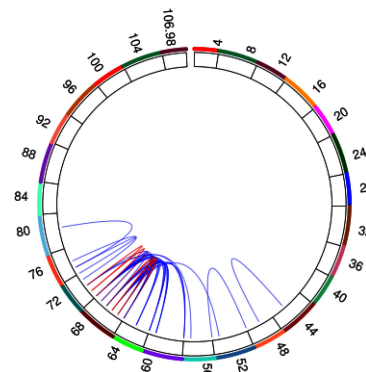
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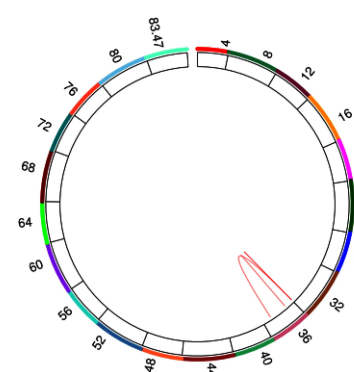
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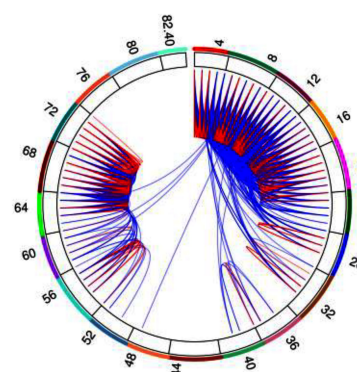
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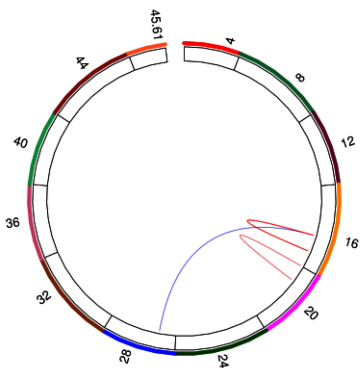
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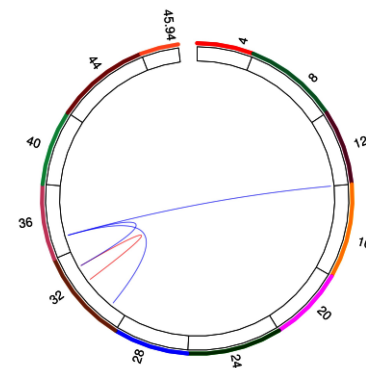
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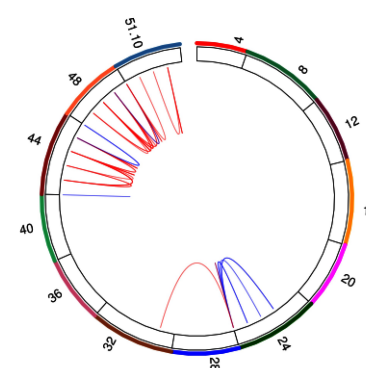
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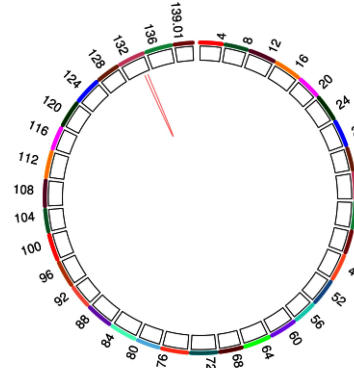
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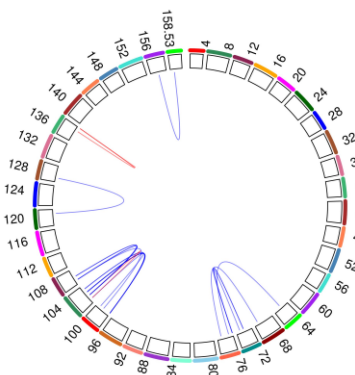
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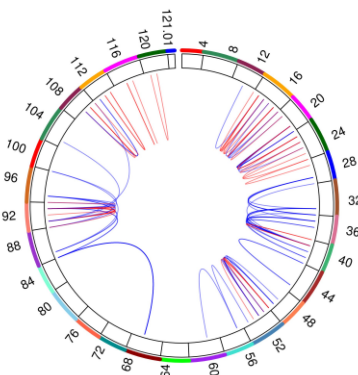
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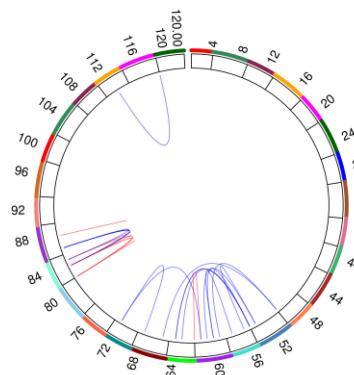
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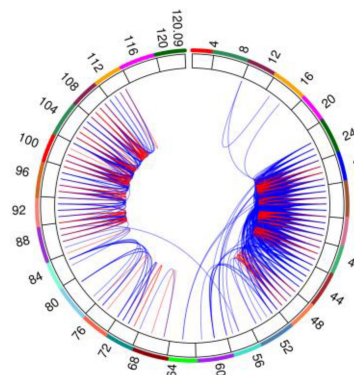
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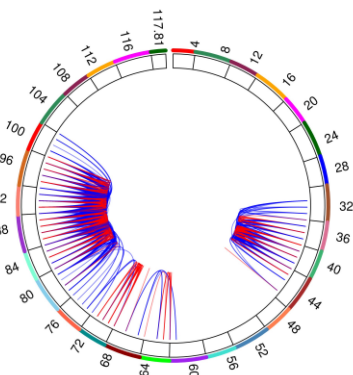
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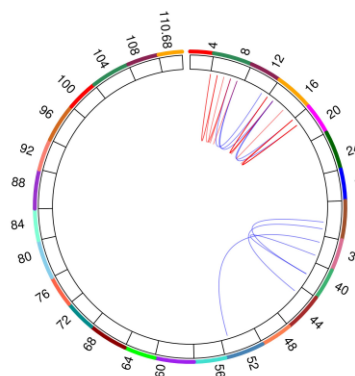
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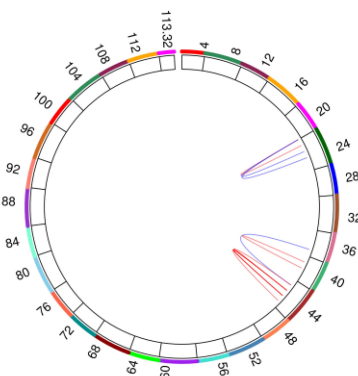
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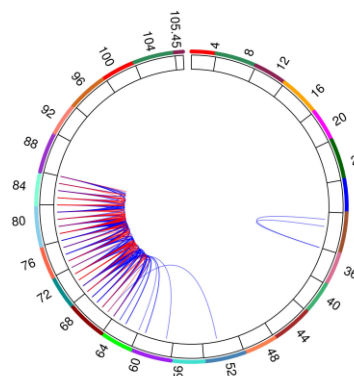
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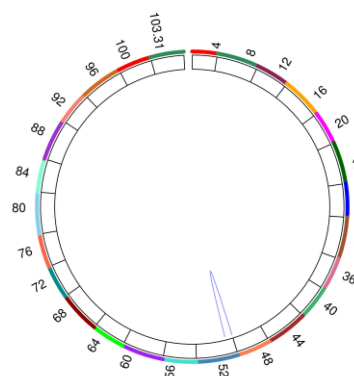
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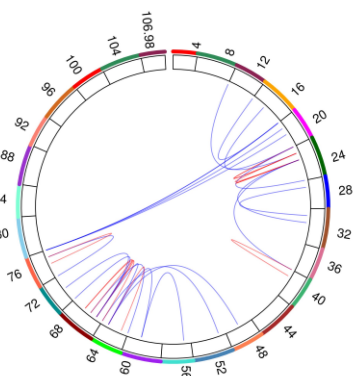
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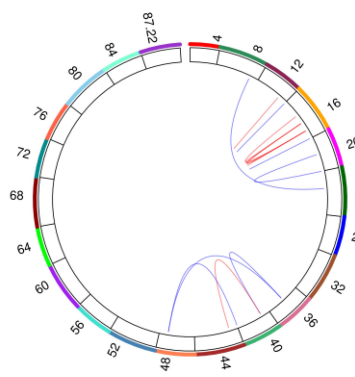
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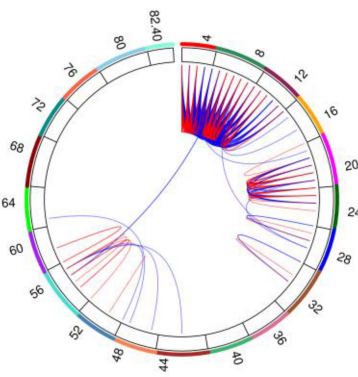
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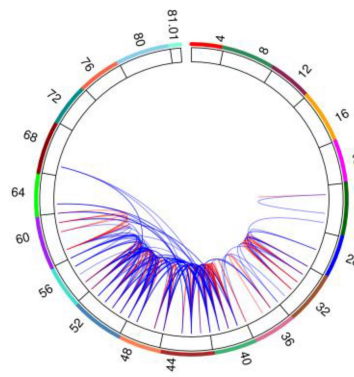
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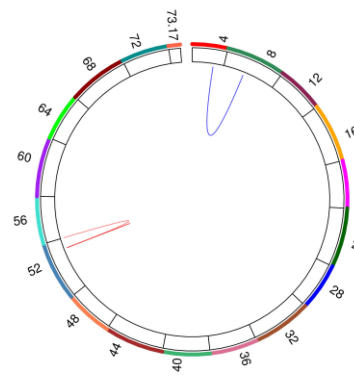
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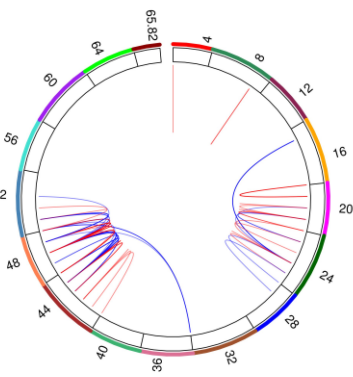
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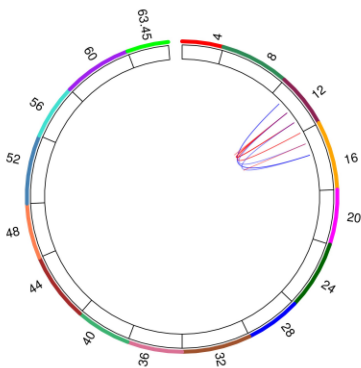
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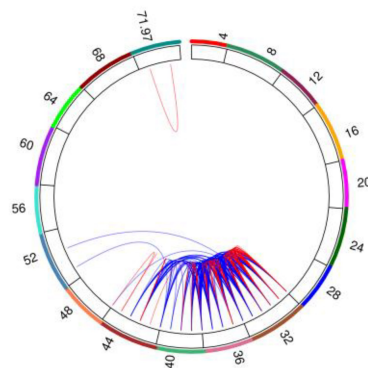
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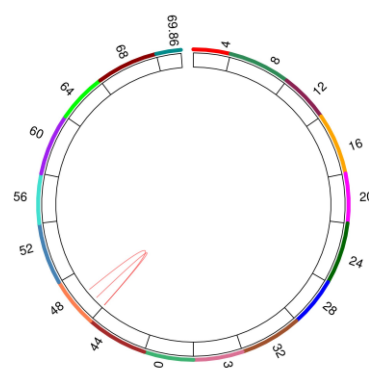
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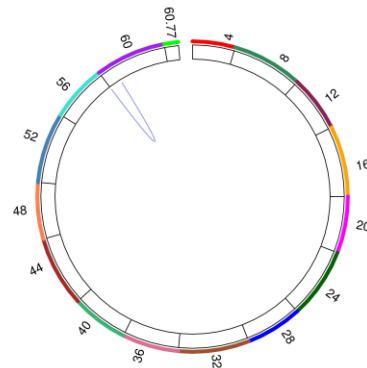
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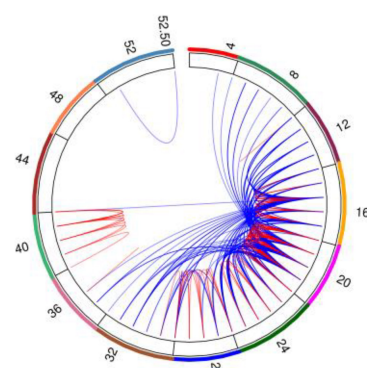
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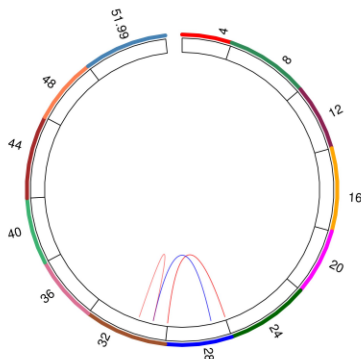
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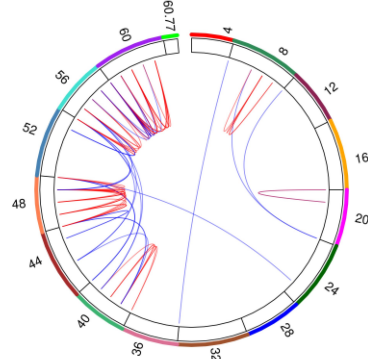
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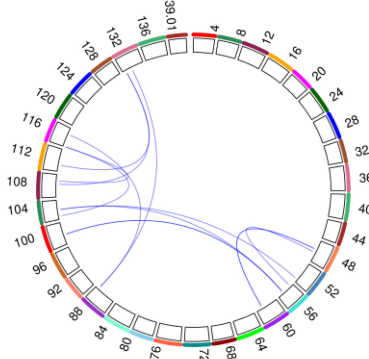
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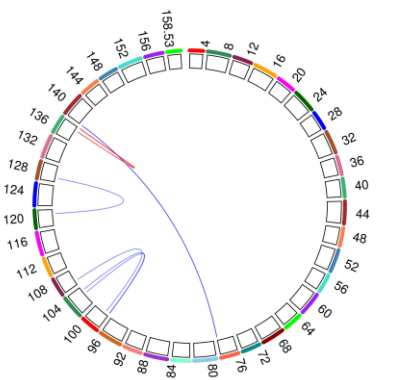
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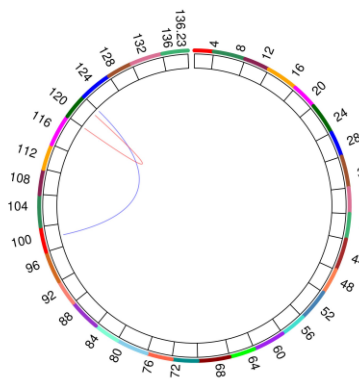
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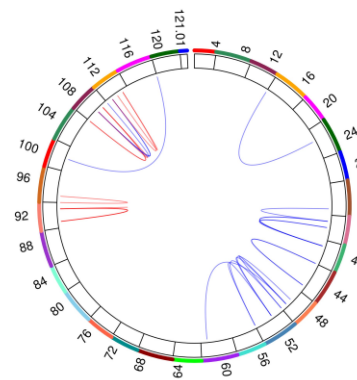
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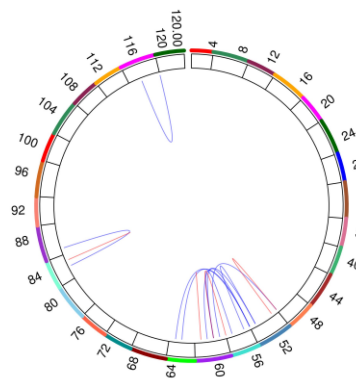
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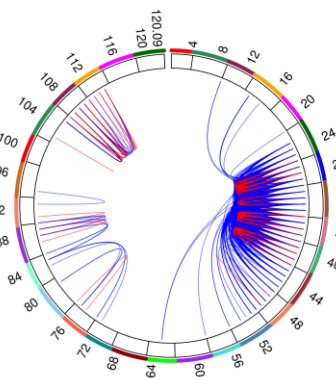
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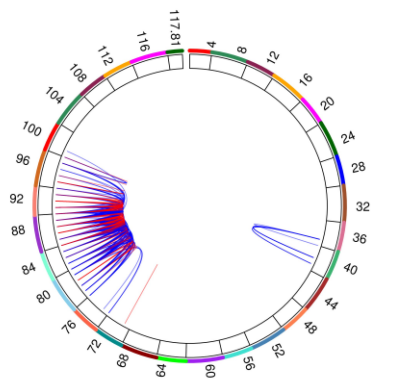
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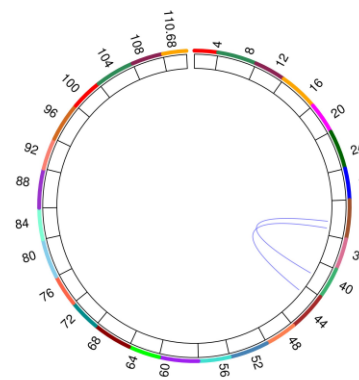
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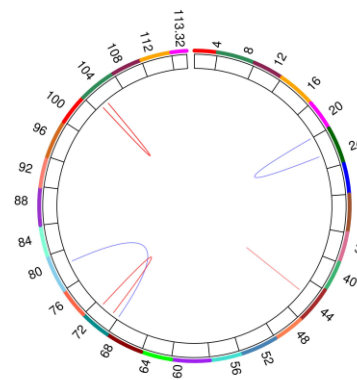
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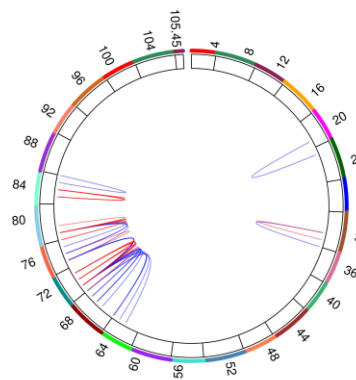
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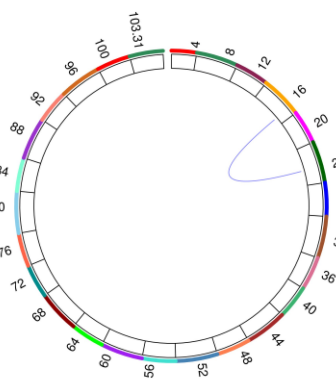
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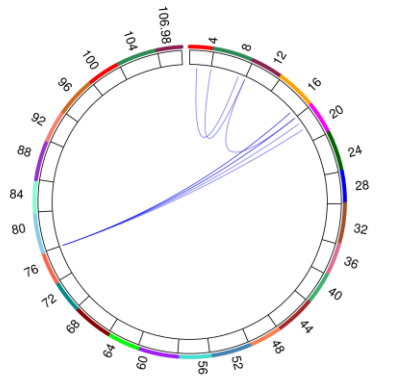
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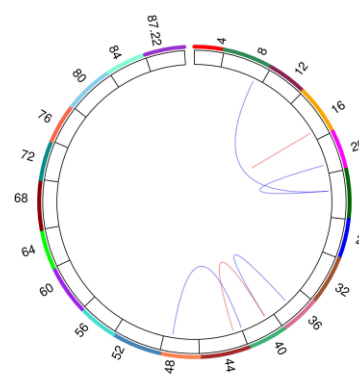
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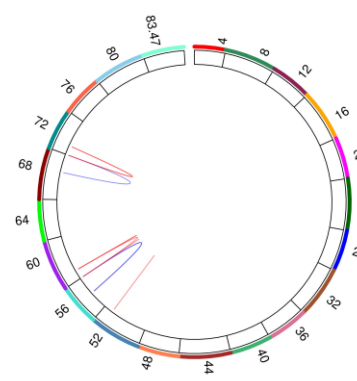
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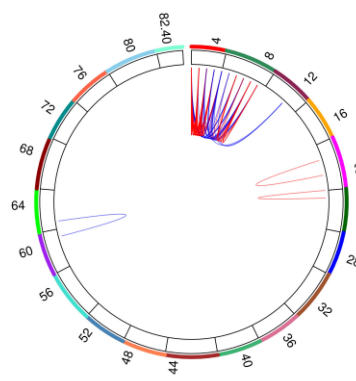
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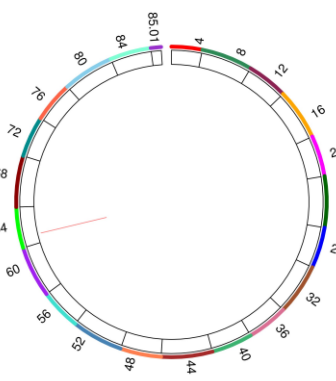
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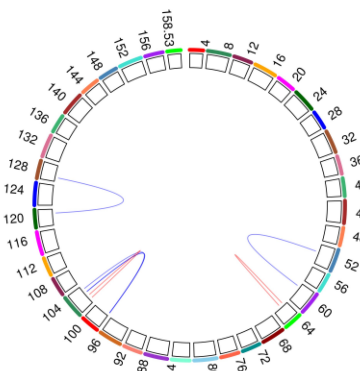
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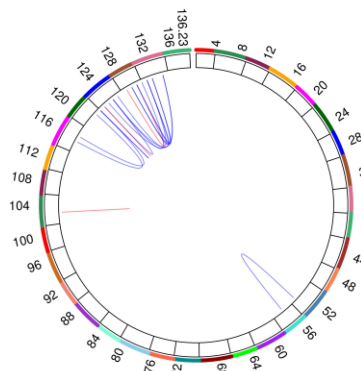
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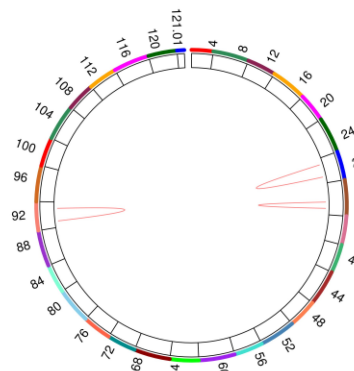
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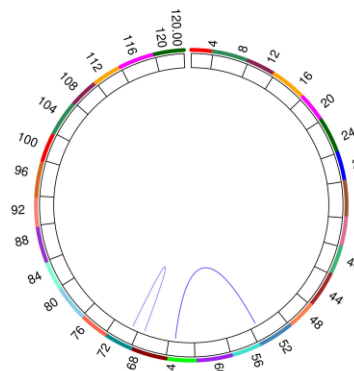
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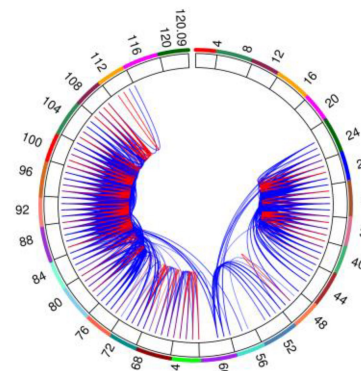
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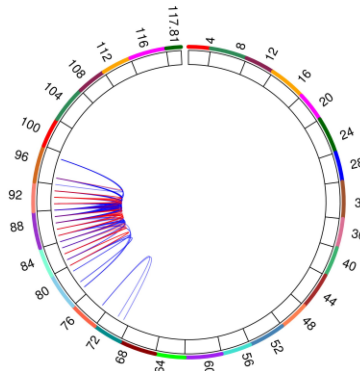
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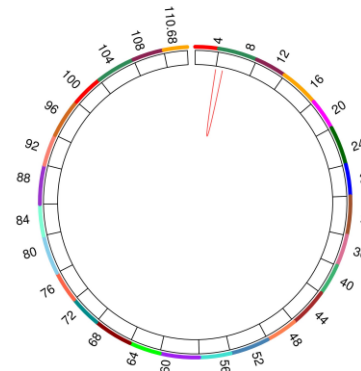
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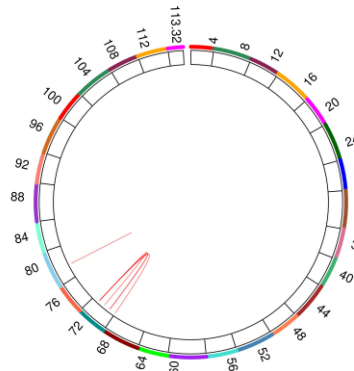
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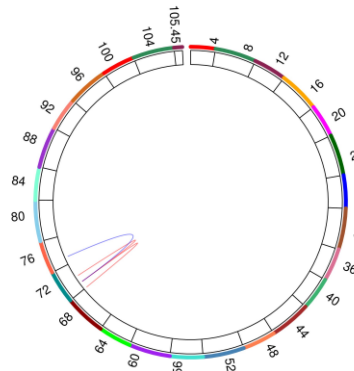
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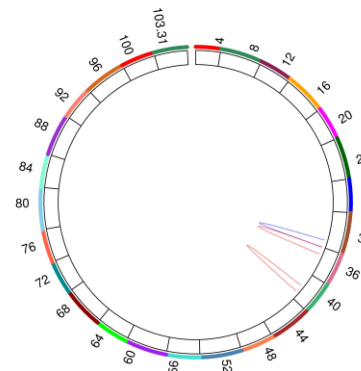
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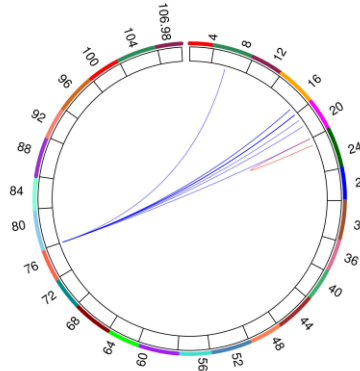
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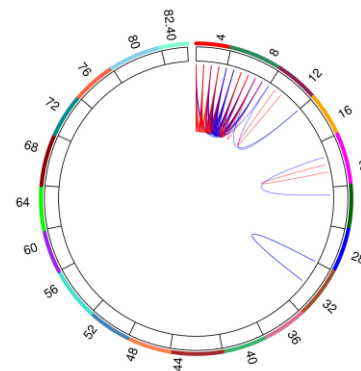
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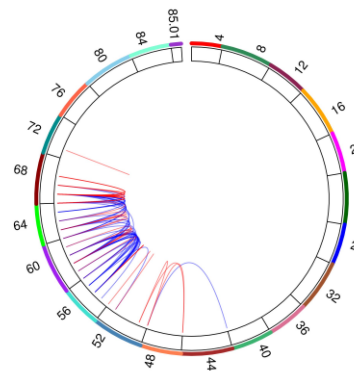
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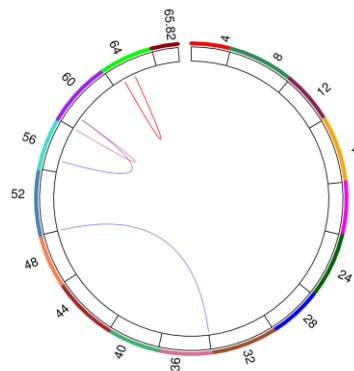
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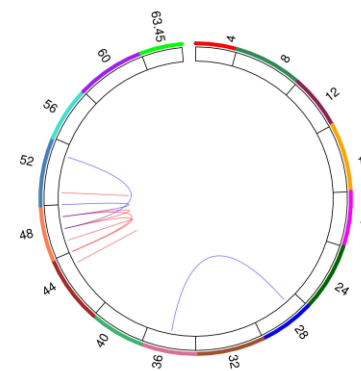
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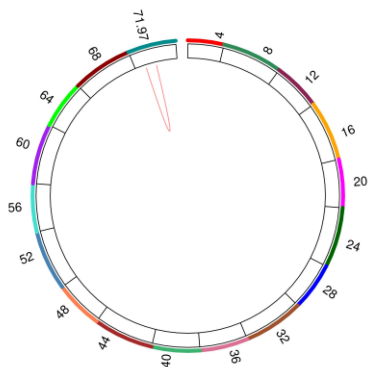
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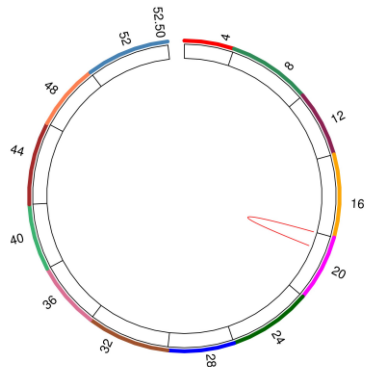
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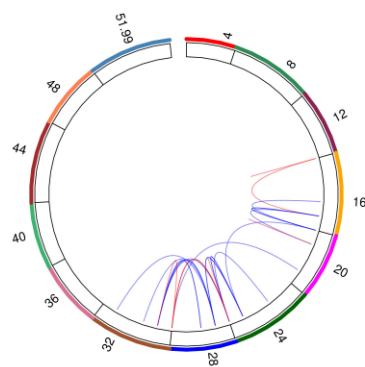
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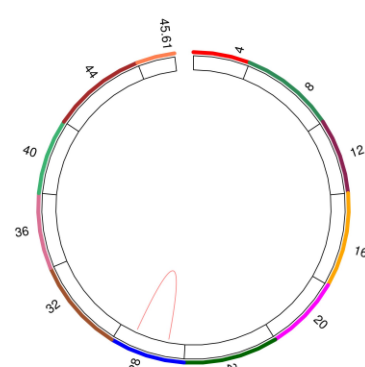
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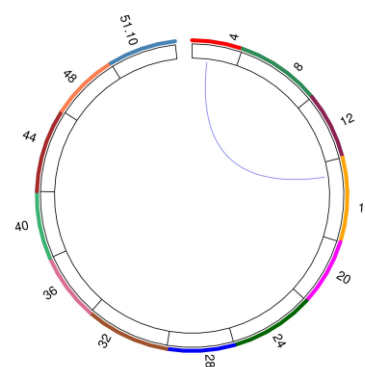
FY: Chr26 (Mb)



FY: Chr27 (Mb)



FY: Chr29 (Mb)



FY ChrX (Mb)

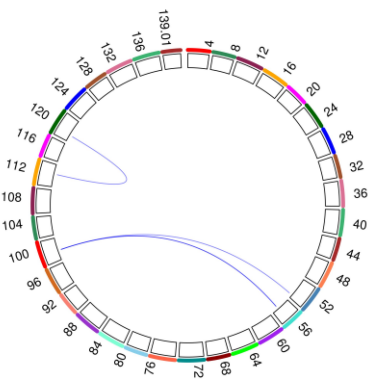


Figure S1. Intra-chromosome epistasis effects with $\log(1/p) \geq 12$. Each outer number is the chromosome distance in megabases (Mb), each chromosome is divided into 4-Mb segments, red color represents intra-4Mb or short-range epistasis effects, and blue color represents inter-4Mb or long-range epistasis effects. FPC = fat percentage, PPC = protein percentage, MY = milk yield, PY = protein yield, FY = fat yield.