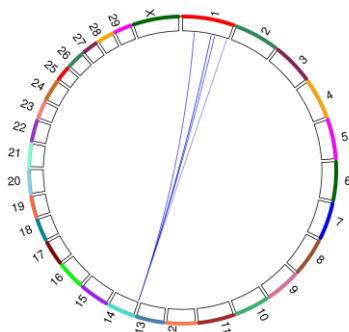
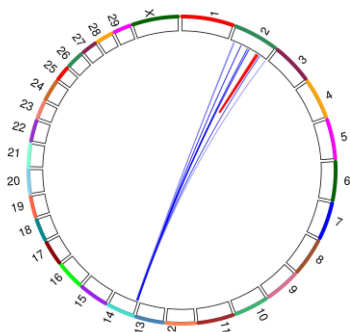


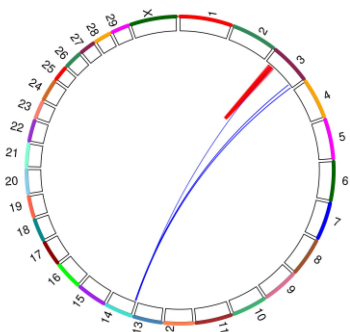
FPC: Chr01 (Mb)



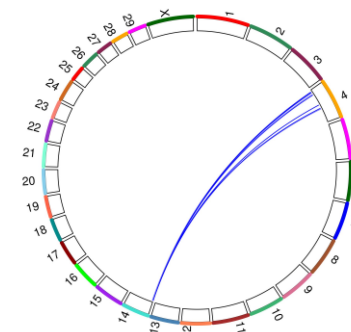
FPC: Chr02 (Mb)



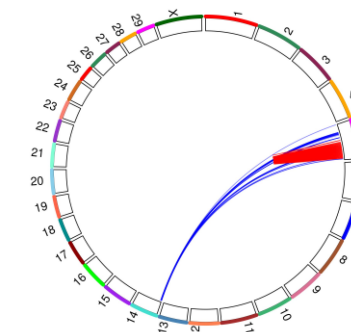
FPC: Chr03 (Mb)



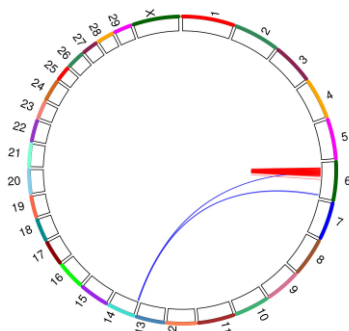
FPC: Chr04 (Mb)



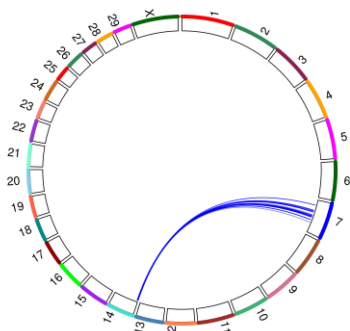
FPC: Chr05 (Mb)



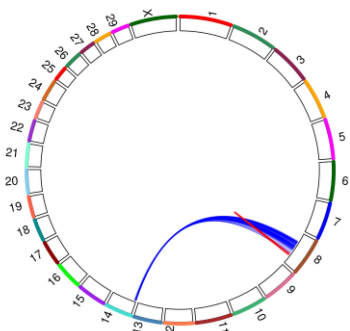
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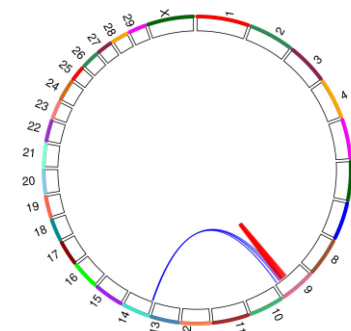
FPC: Chr07 (Mb)



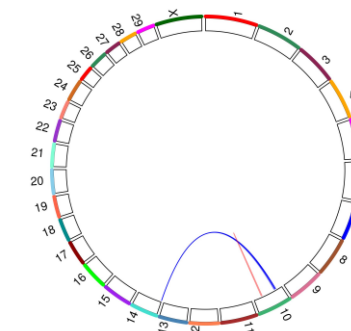
FPC: Chr08 (Mb)



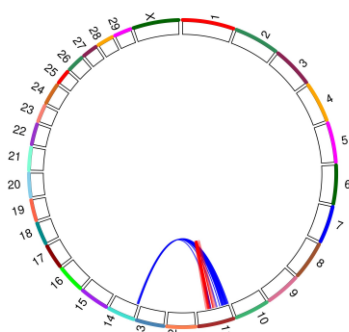
FPC: Chr09 (Mb)



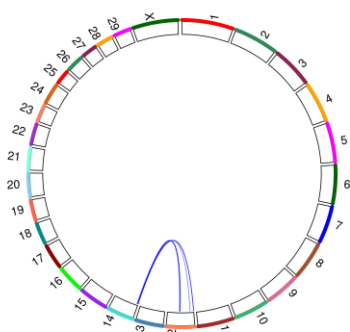
FPC: Chr10 (Mb)



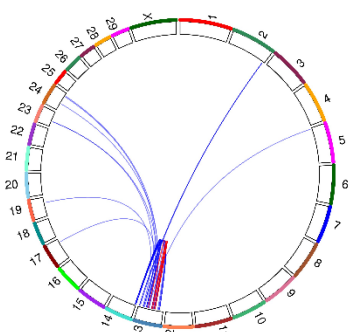
FPC: Chr11 (Mb)



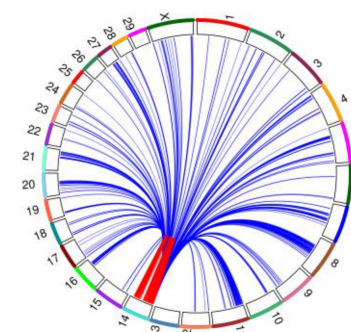
FPC: Chr12 (Mb)



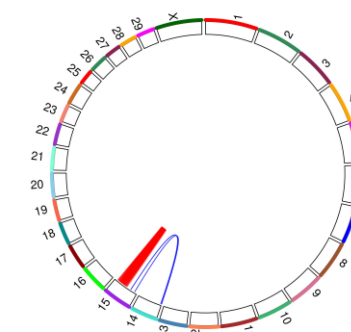
FPC: Chr13, 60K result (Mb)



FPC: Chr14 (Mb)



FPC: Chr15 (Mb)



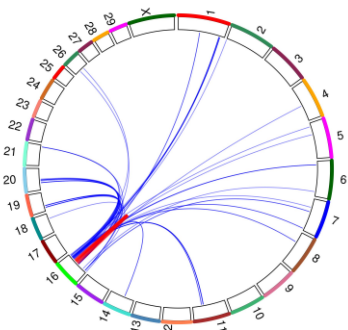
A circular diagram showing the 26 letters of the alphabet arranged in a circle. The letters are labeled from 1 to 26, starting from the top and moving clockwise. The letters are: 1 (A), 2 (B), 3 (C), 4 (D), 5 (E), 6 (F), 7 (G), 8 (H), 9 (I), 10 (J), 11 (K), 12 (L), 13 (M), 14 (N), 15 (O), 16 (P), 17 (Q), 18 (R), 19 (S), 20 (T), 21 (U), 22 (V), 23 (W), 24 (X), 25 (Y), 26 (Z). Lines connect letters that are 10 positions apart: A to J, B to K, C to L, D to M, E to N, F to O, G to P, H to Q, I to R, and J to S. These lines form a series of concentric arcs within the circle.

A circular diagram representing the 12 zodiac signs. The signs are numbered 1 through 12 around the perimeter. A blue line connects the 1st sign (Aries) to the 12th sign (Capricorn), passing through the center of the circle.

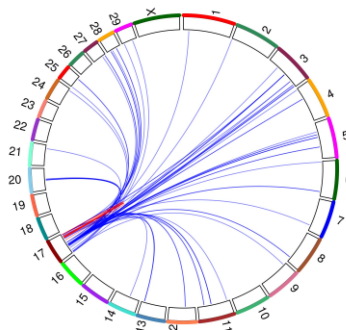




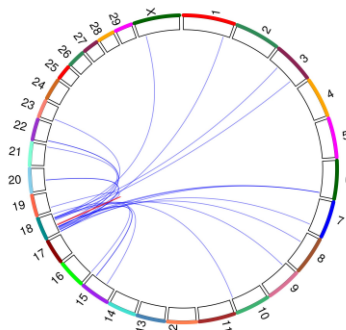
PPC: Chr16 (Mb)



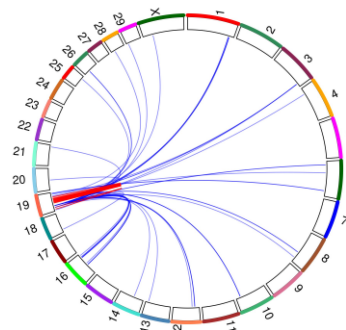
PPC: Chr17 (Mb)



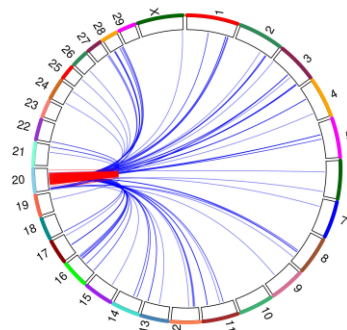
PPC: Chr18 (Mb)



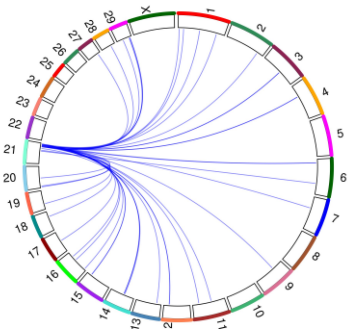
PPC: Chr19 (Mb)



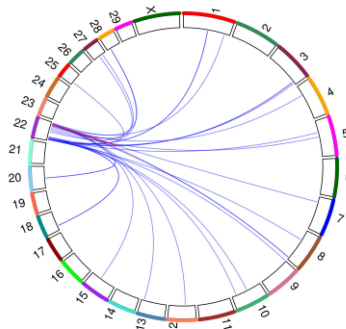
PPC: Chr20 (Mb)



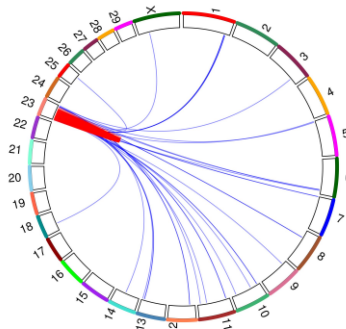
PPC: Chr21 (Mb)



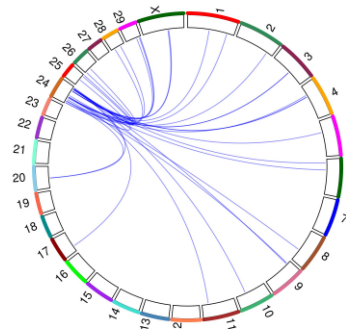
PPC: Chr22 (Mb)



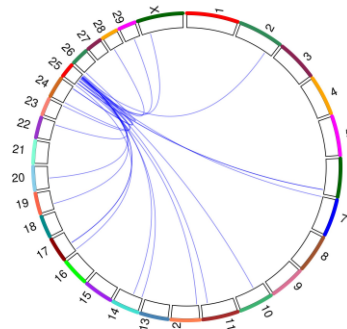
PPC: Chr23 (Mb)



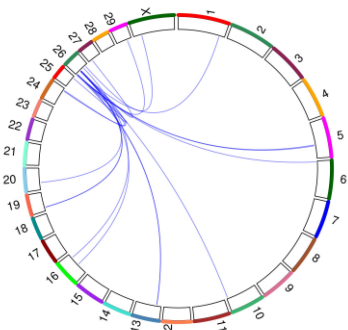
PPC: Chr24 (Mb)



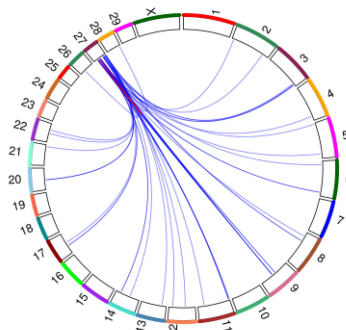
PPC: Chr25, 60K result (Mb)



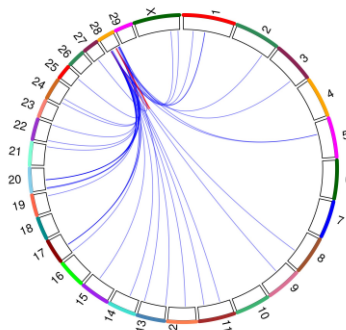
PPC: Chr26 (Mb)



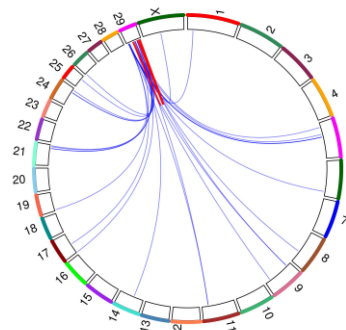
PPC: Chr27 (Mb)



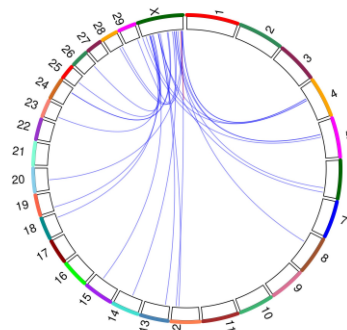
PPC: Chr28 (Mb)



PPC: Chr29 (Mb)

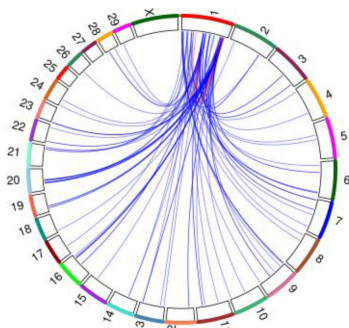


PPC: ChrX (Mb)

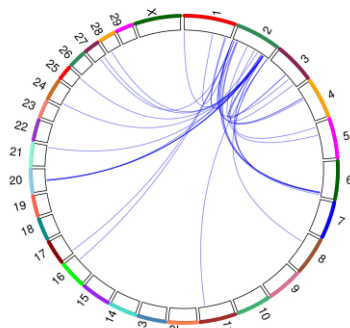




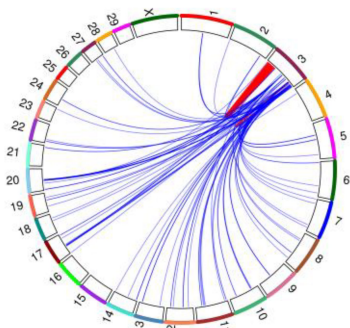
PY: Chr01 (Mb)



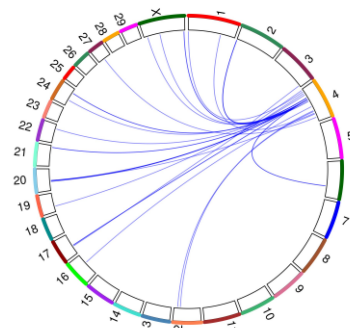
PY: Chr02 (Mb)



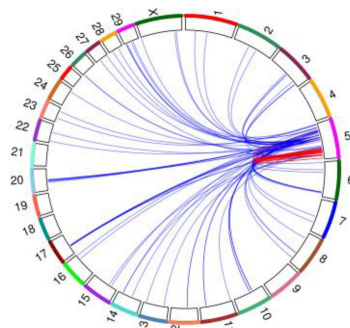
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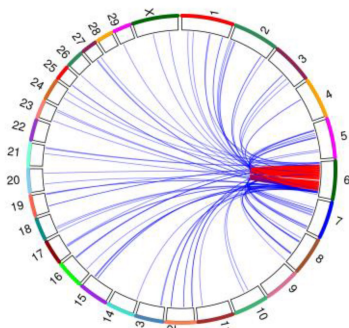
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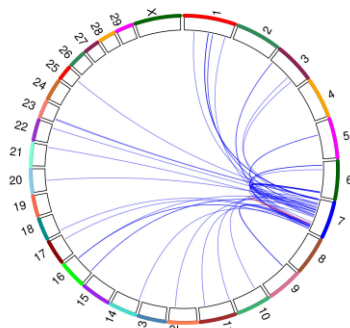
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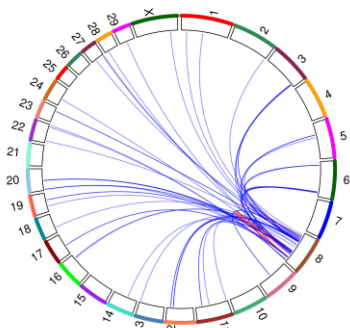
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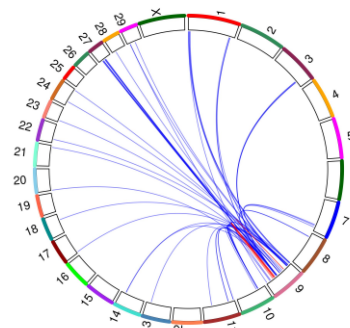
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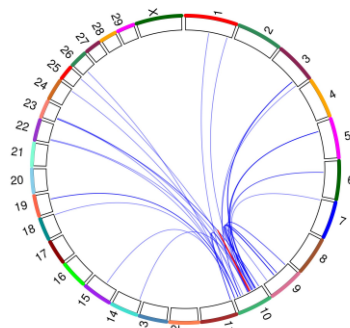
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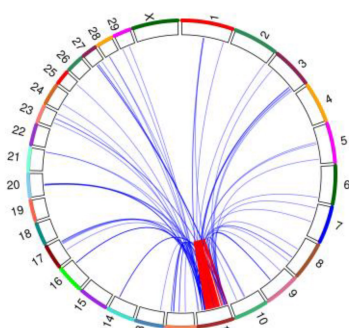
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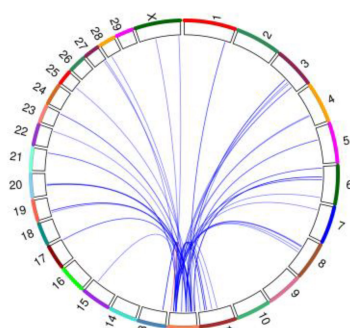
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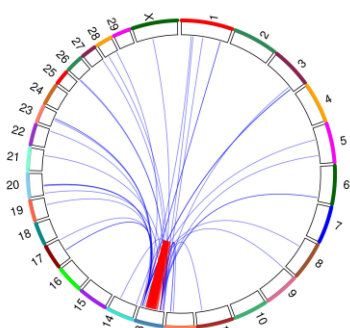
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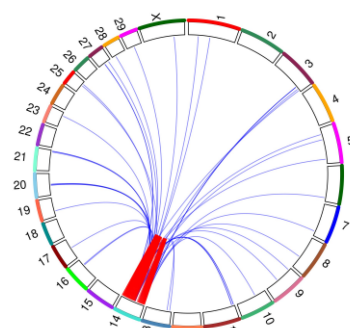
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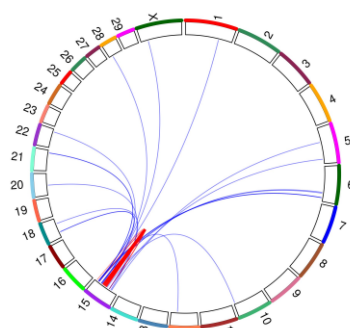
PY: Chr13 (Mb)



PY: Chr14 (Mb)



PY: Chr15 (Mb)

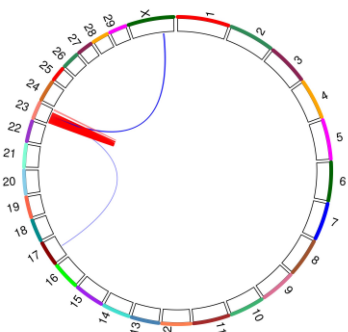




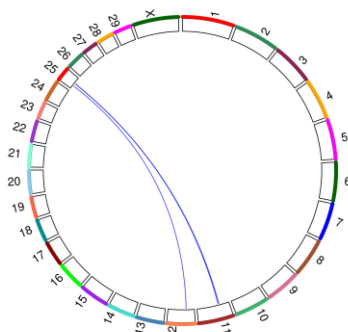




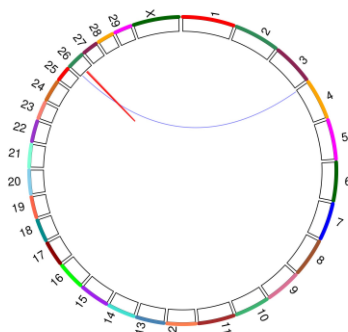
MY: Chr23 (Mb)



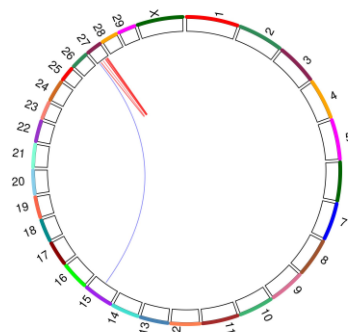
MY: Chr25 (Mb)



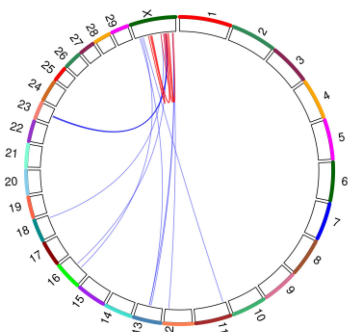
MY: Chr26 (Mb)



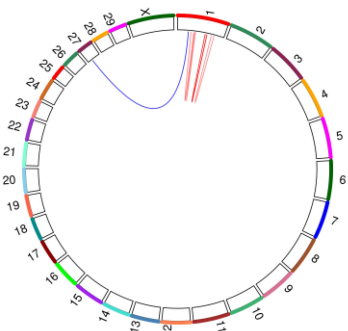
MY: Chr27 (Mb)



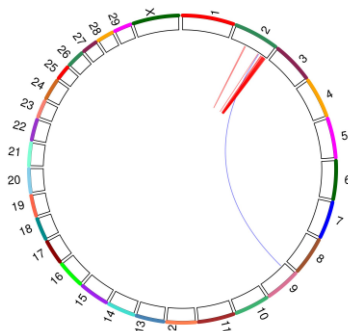
MY: ChrX (Mb)



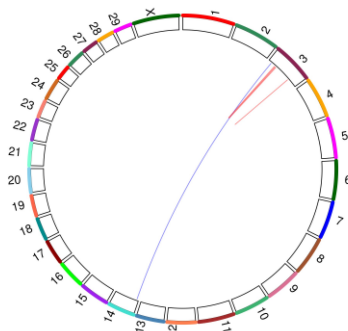
FY: Chr01 (Mb)



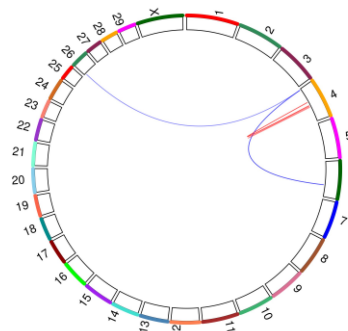
FY: Chr02 (Mb)



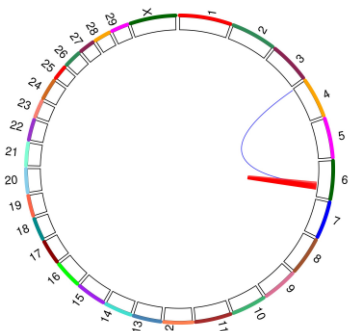
FY: Chr03 (Mb)



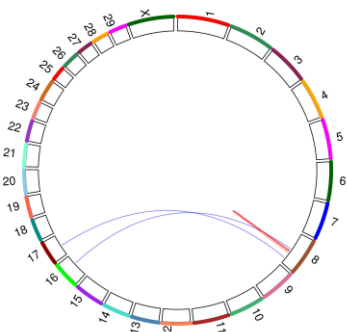
FY: Chr04 (Mb)



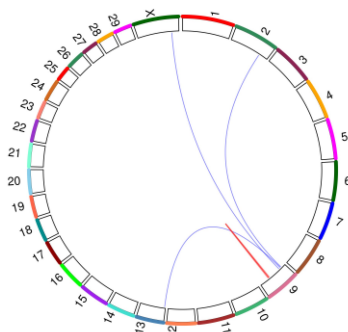
FY: Chr06 (Mb)



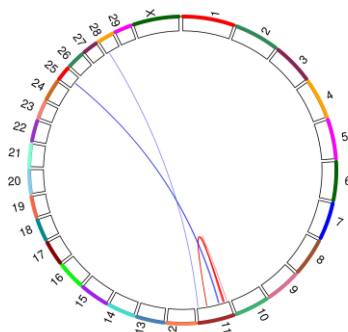
FY: Chr08 (Mb)



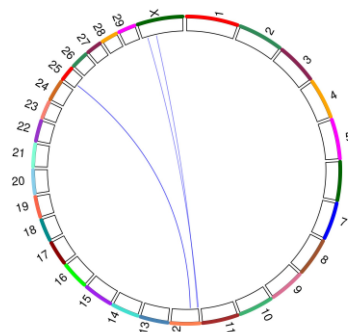
FY: Chr09 (Mb)



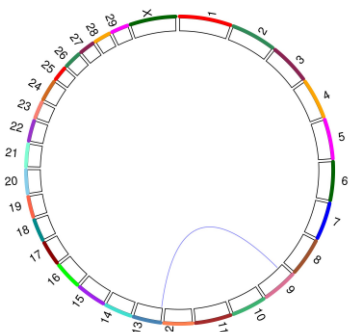
FY: Chr11 (Mb)



FY: Chr12 (Mb)



FY: Chr13 (Mb)



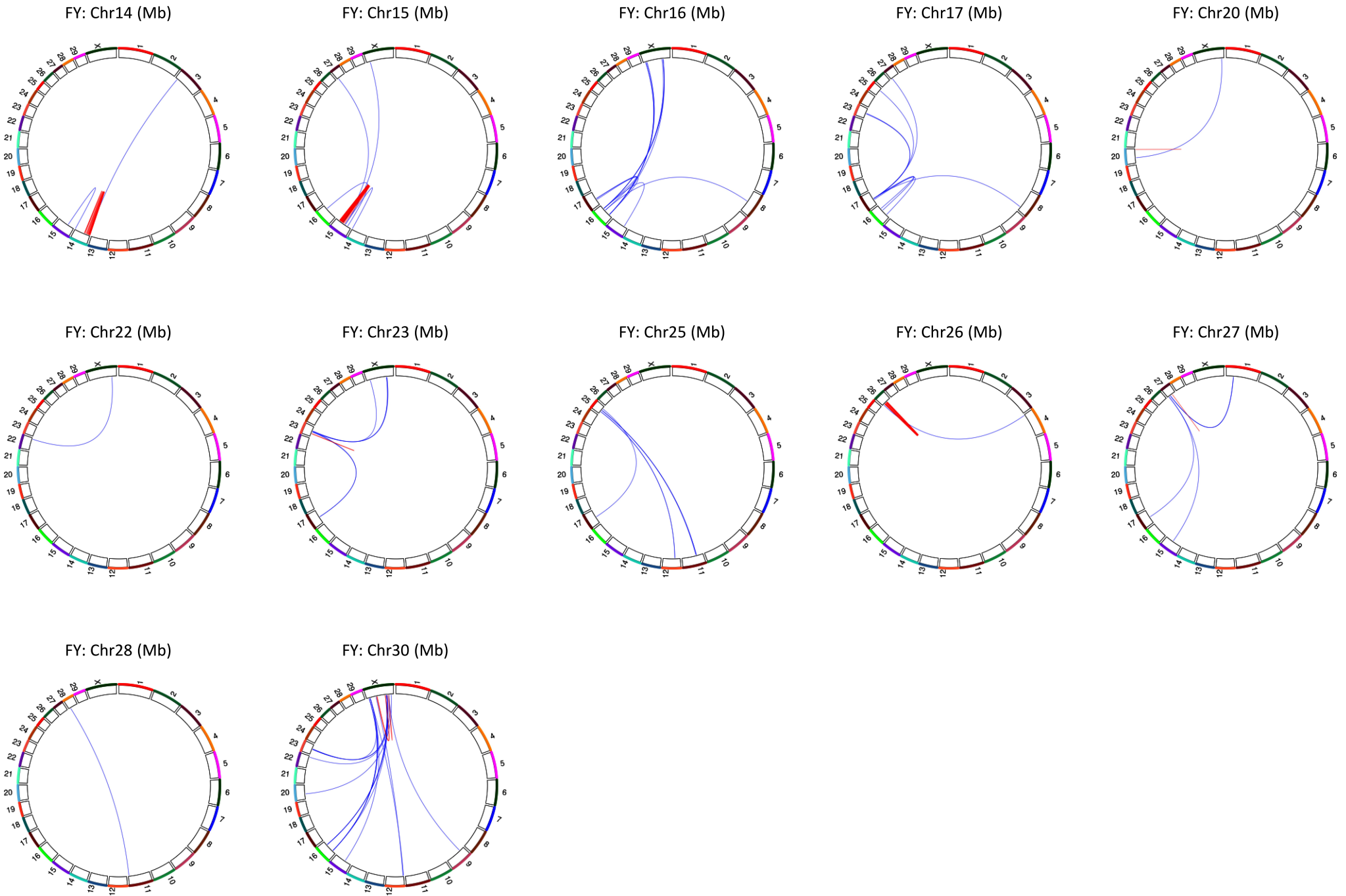


Figure S2. Inter-chromosome epistasis effects with  $\log(1/p) \geq 12$ . Each number on the outer circle is the chromosome number, red color represents intra-4Mb or short-range epistasis effects, and blue color represents inter-4Mb or long-range epistasis effects. FPC = fat percentage, PPC = protein percentage, PY = protein yield, MY = milk yield, FY = fat yield.