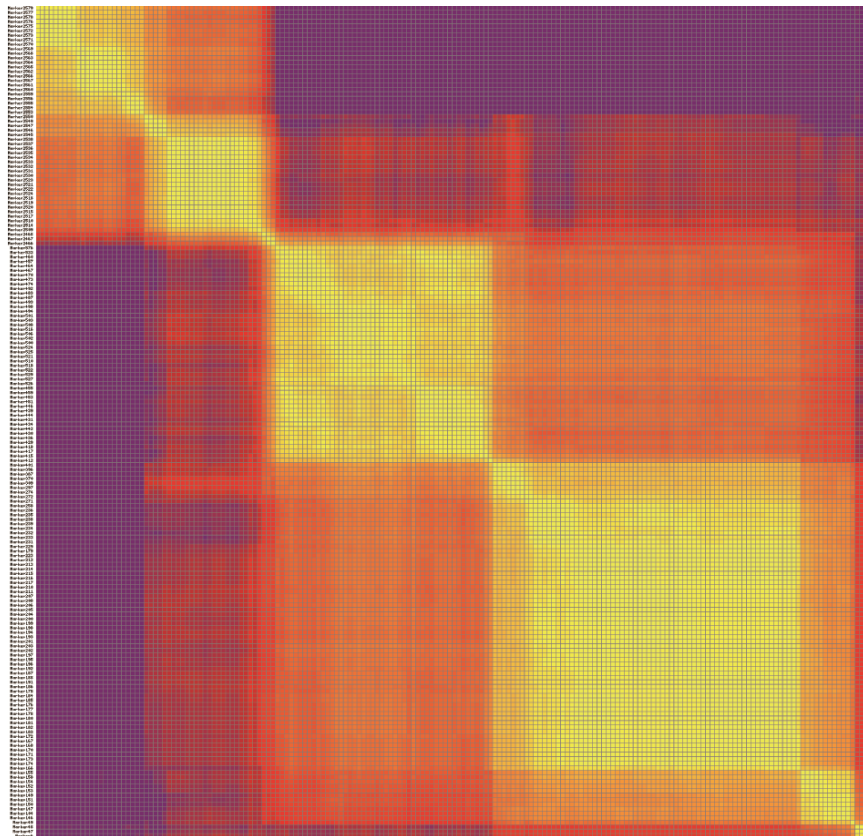
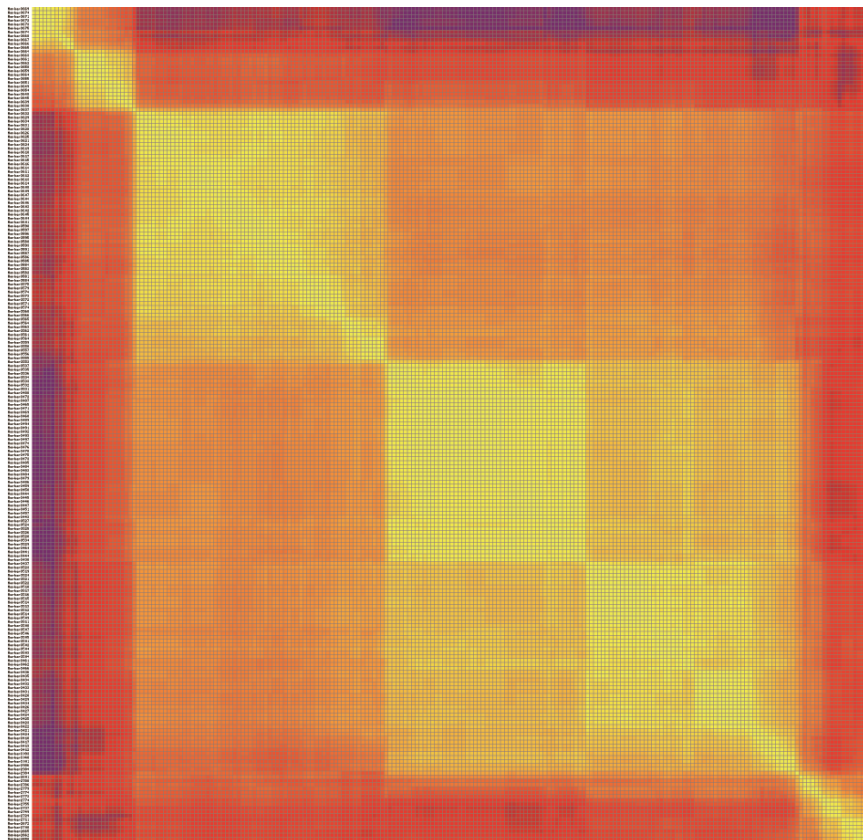


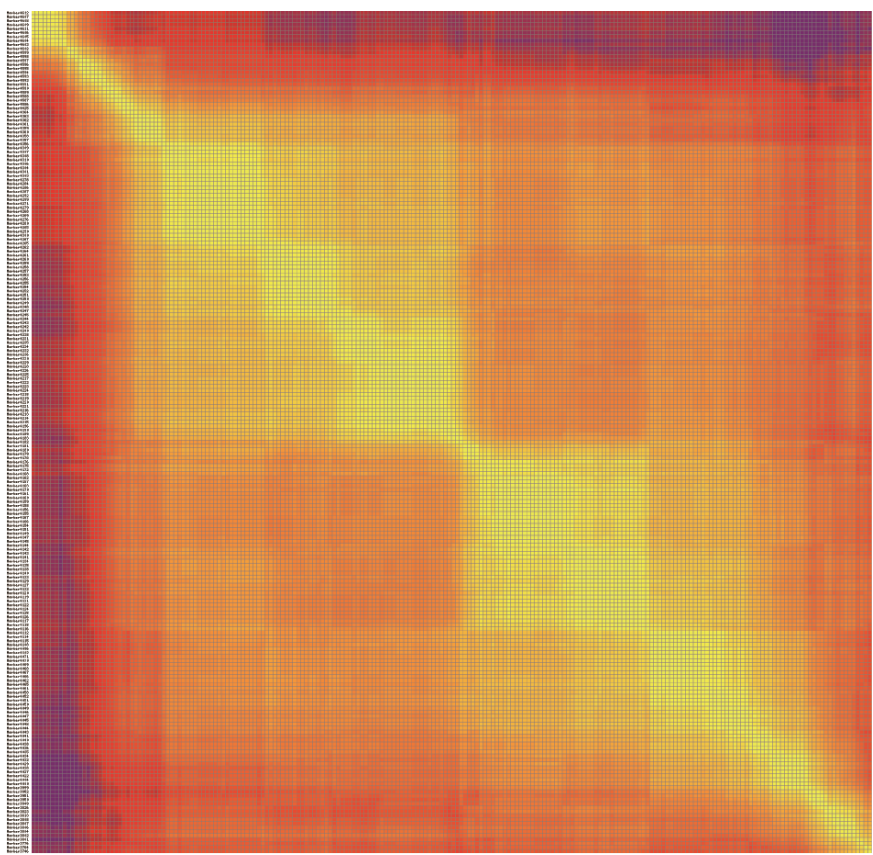


Chromosome A1

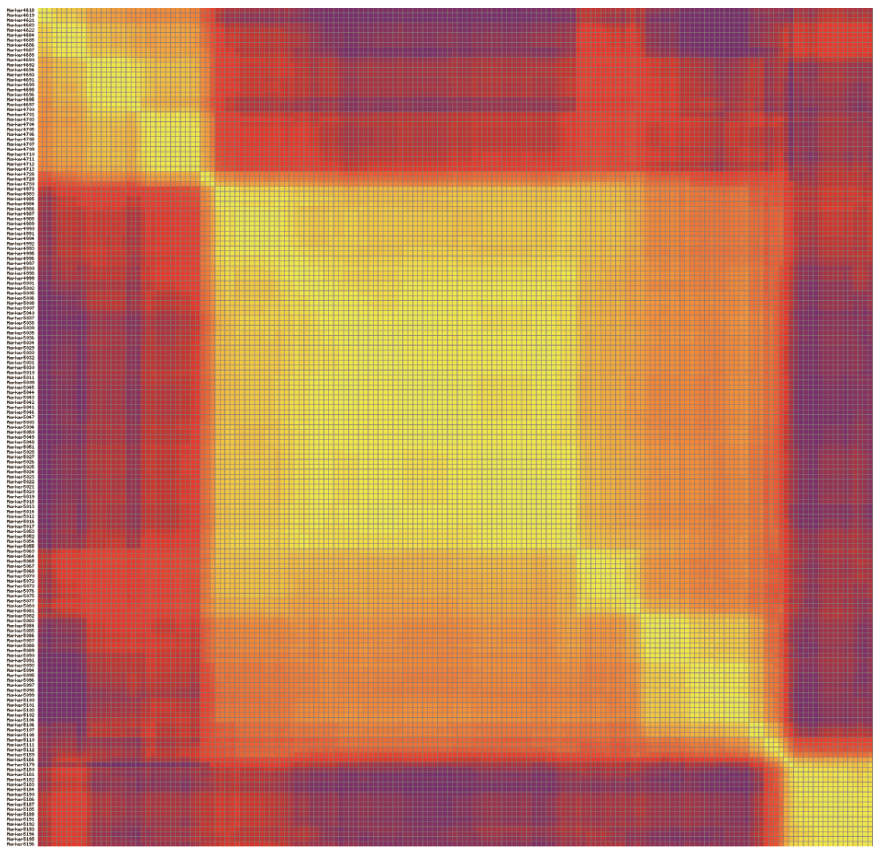


Chromosome A2

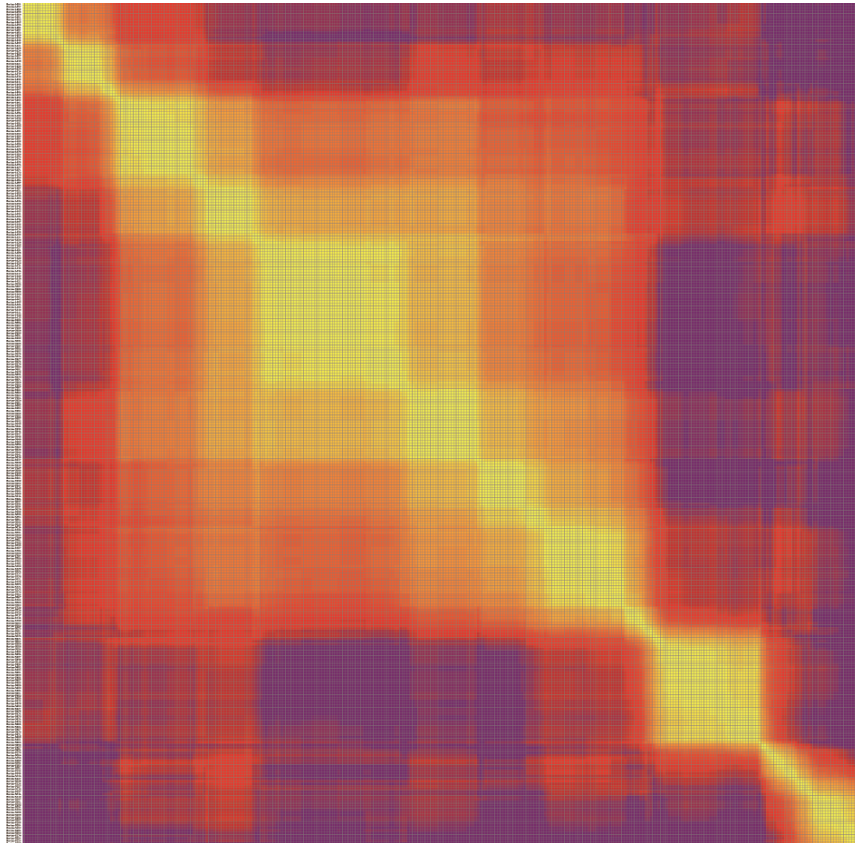
Supplemental file 4 Heat maps of the 26 linkage groups. Color from yellow to red and then purple indicates the increase of recombination frequency.



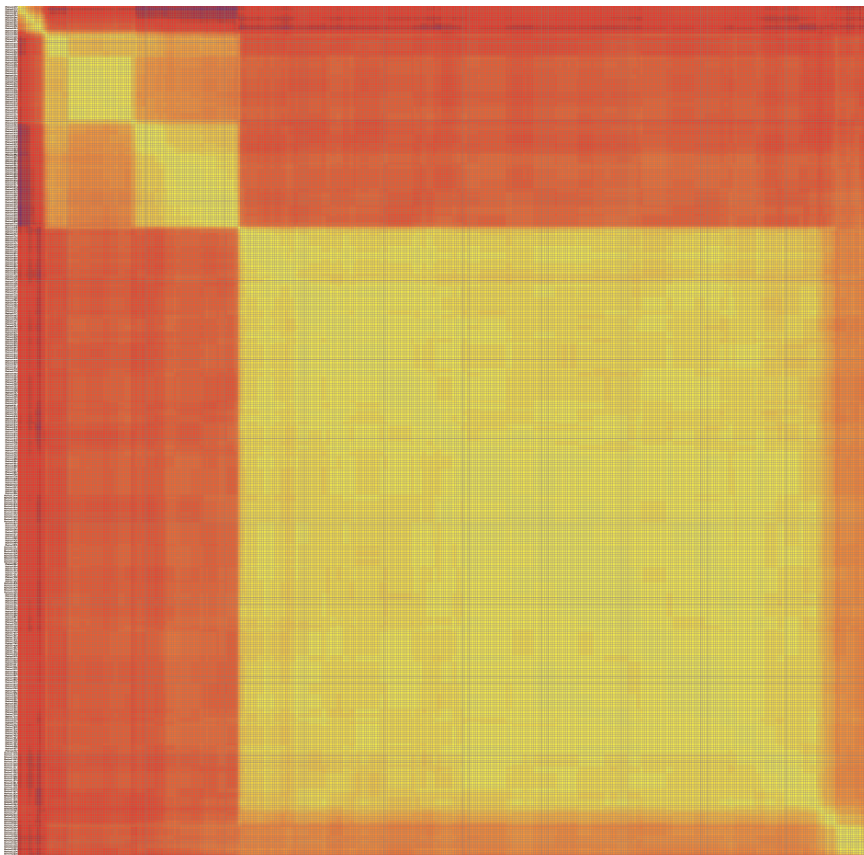
Chromosome A3



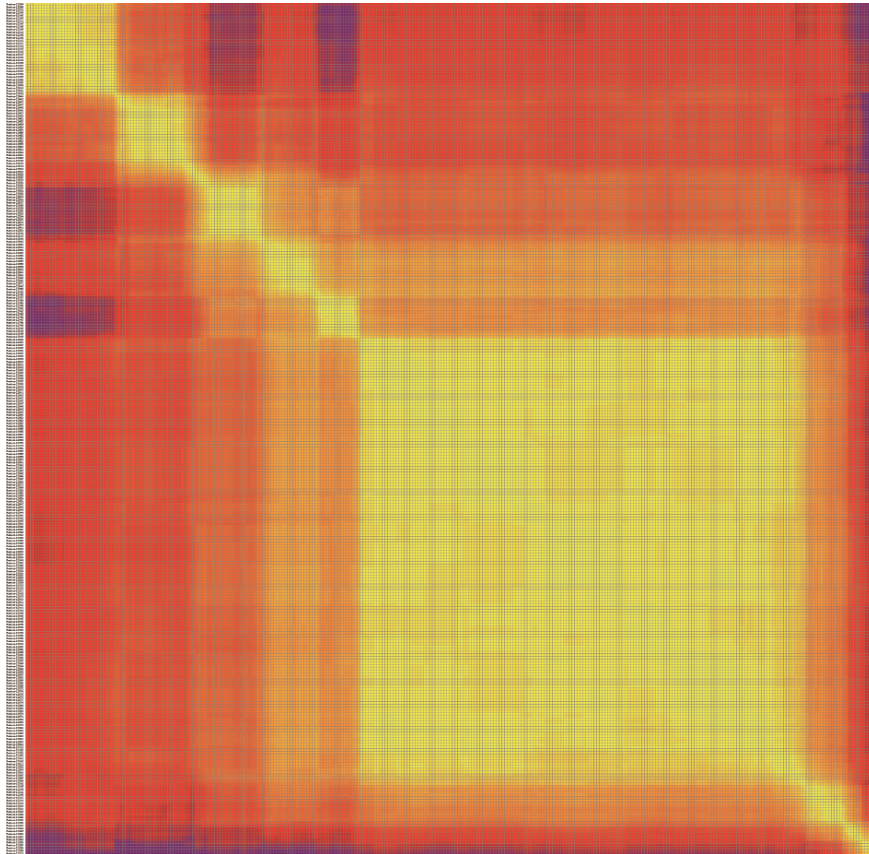
Chromosome A4



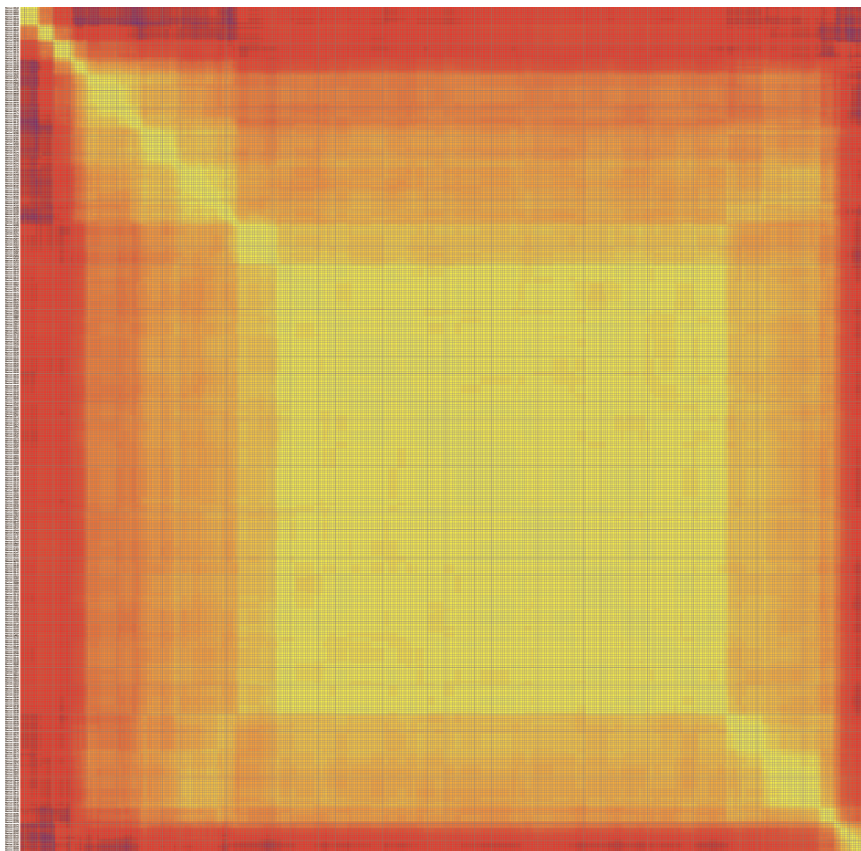
Chromosome A5



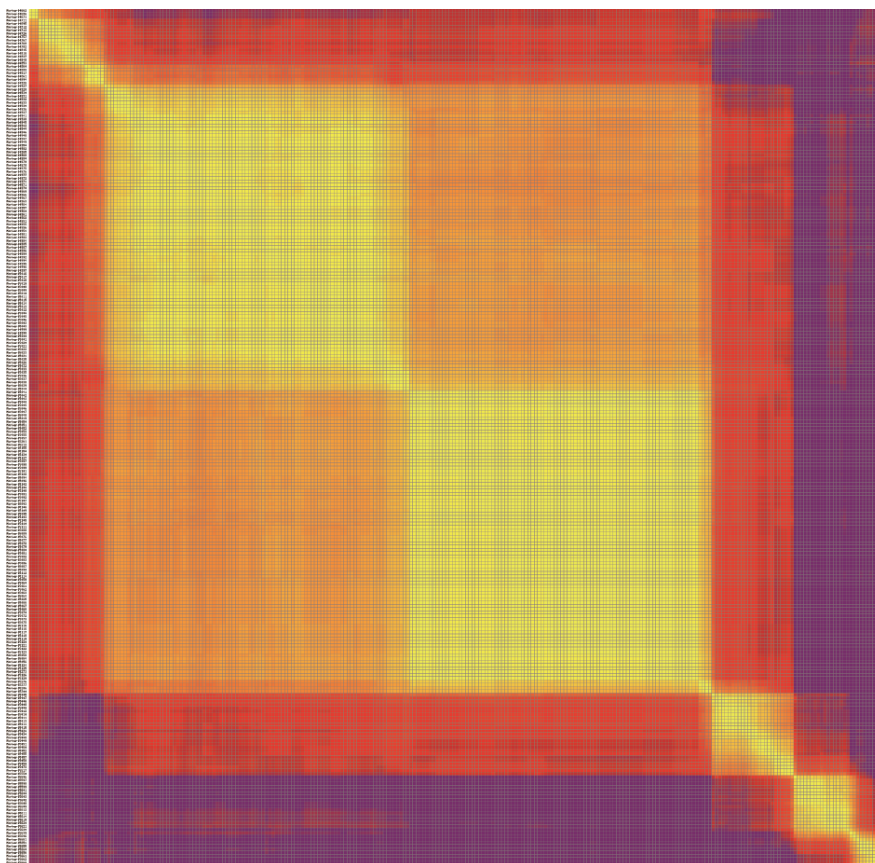
Chromosome A6



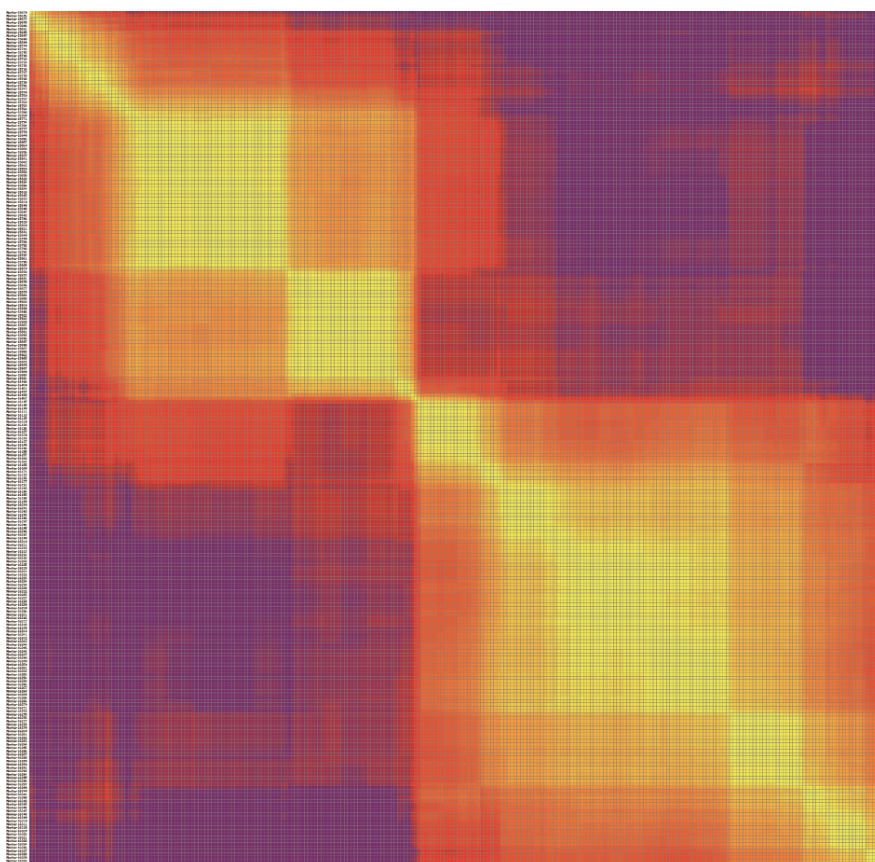
Chromosome A7



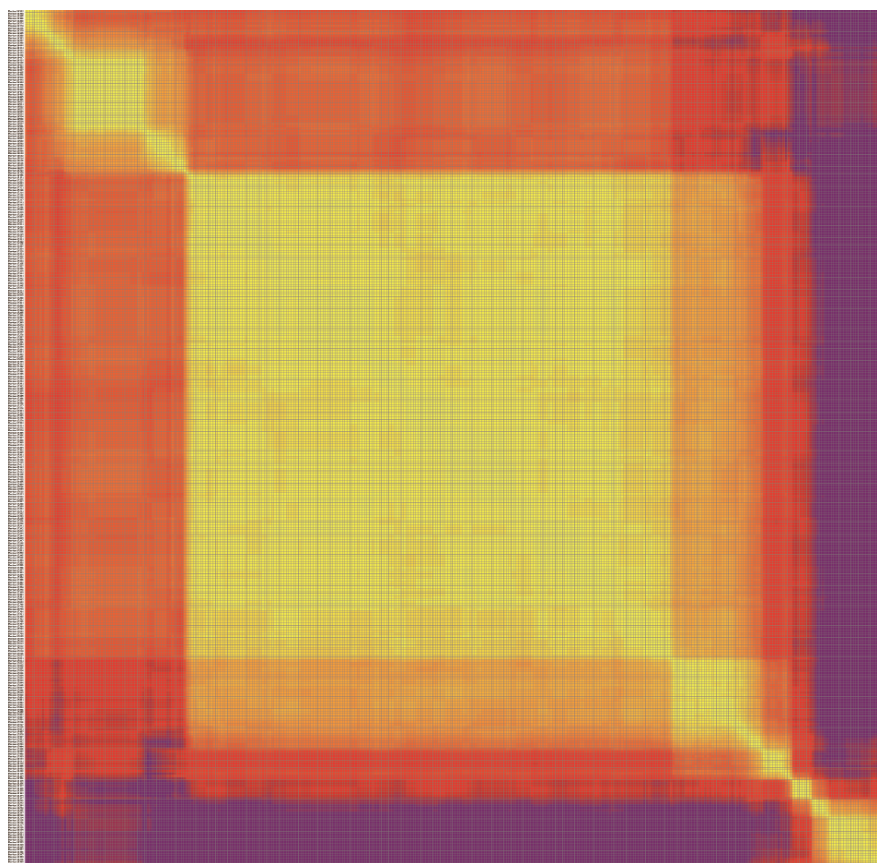
Chromosome A8



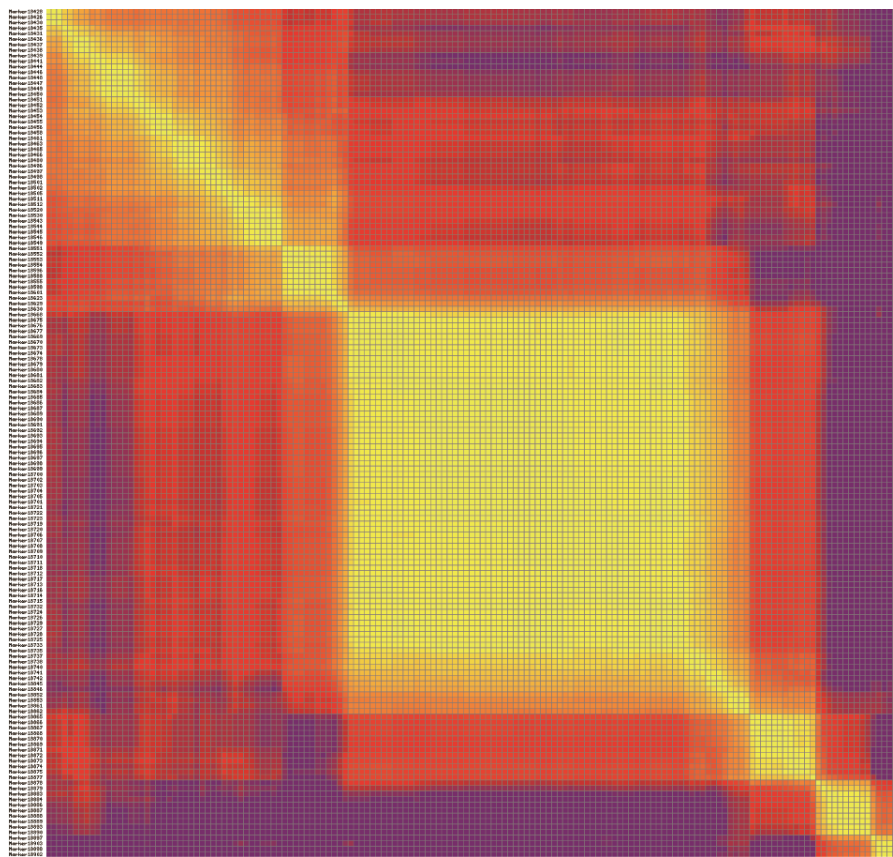
Chromosome A9



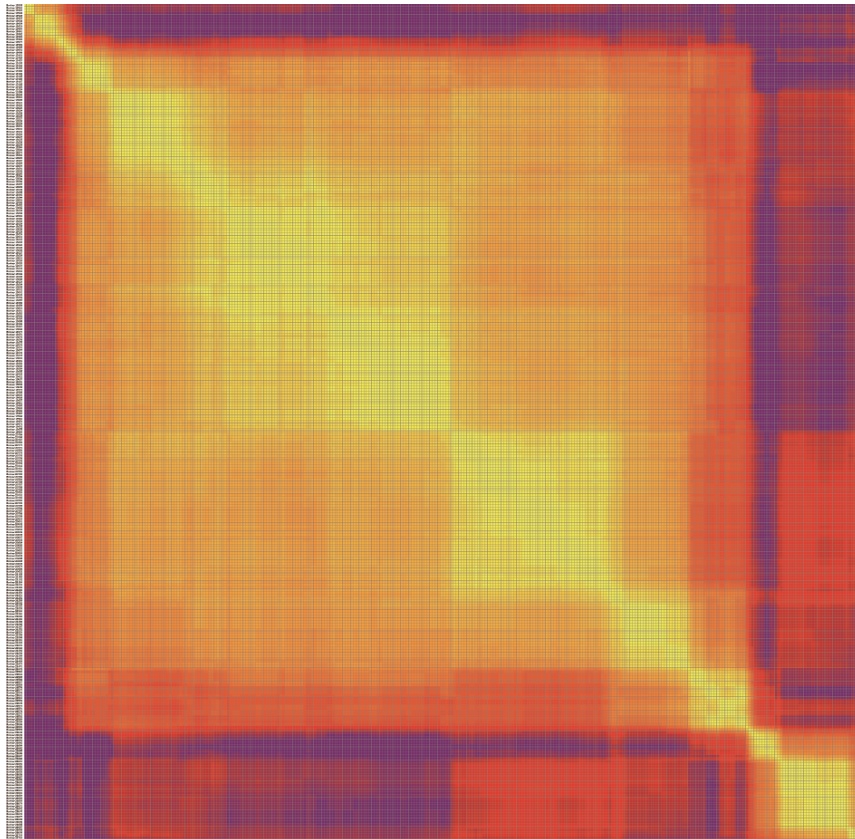
Chromosome A10



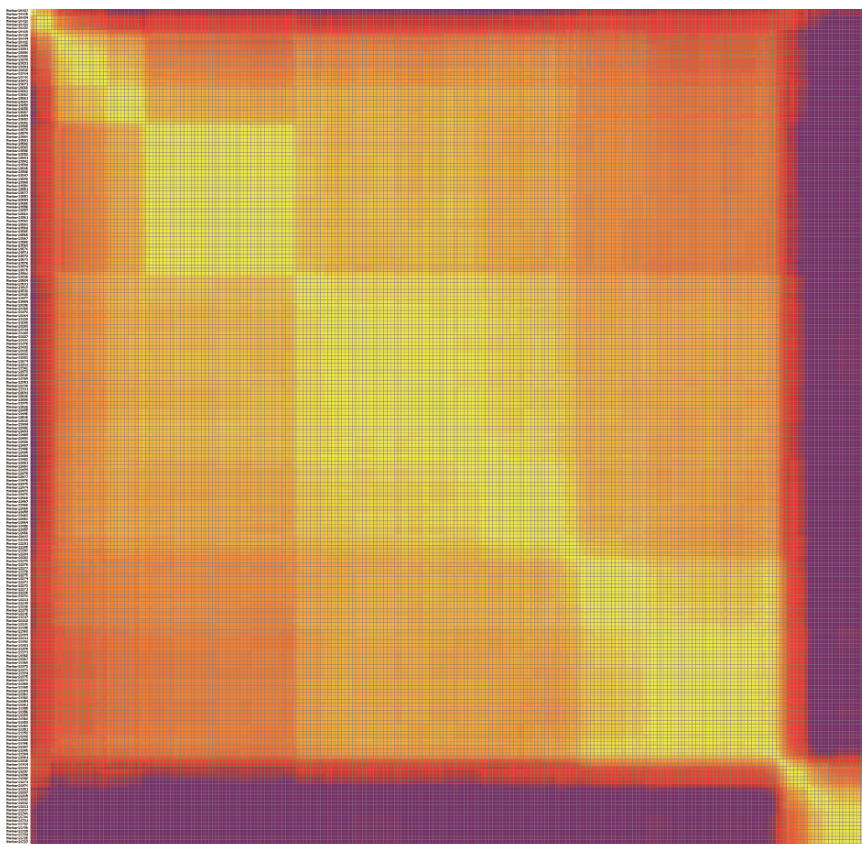
Chromosome A11



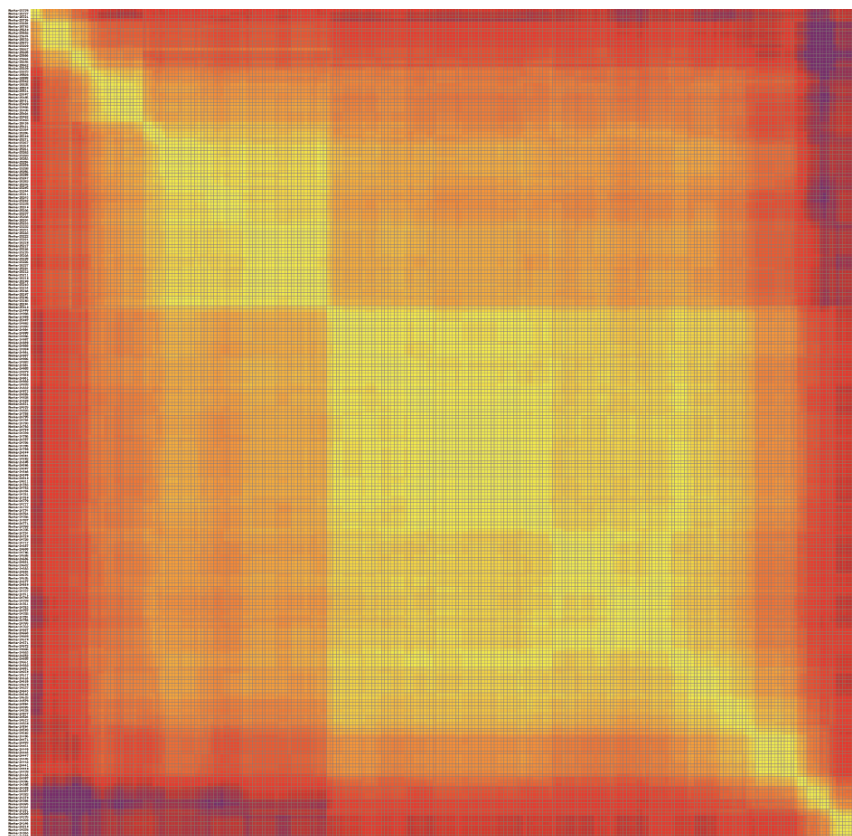
Chromosome A12



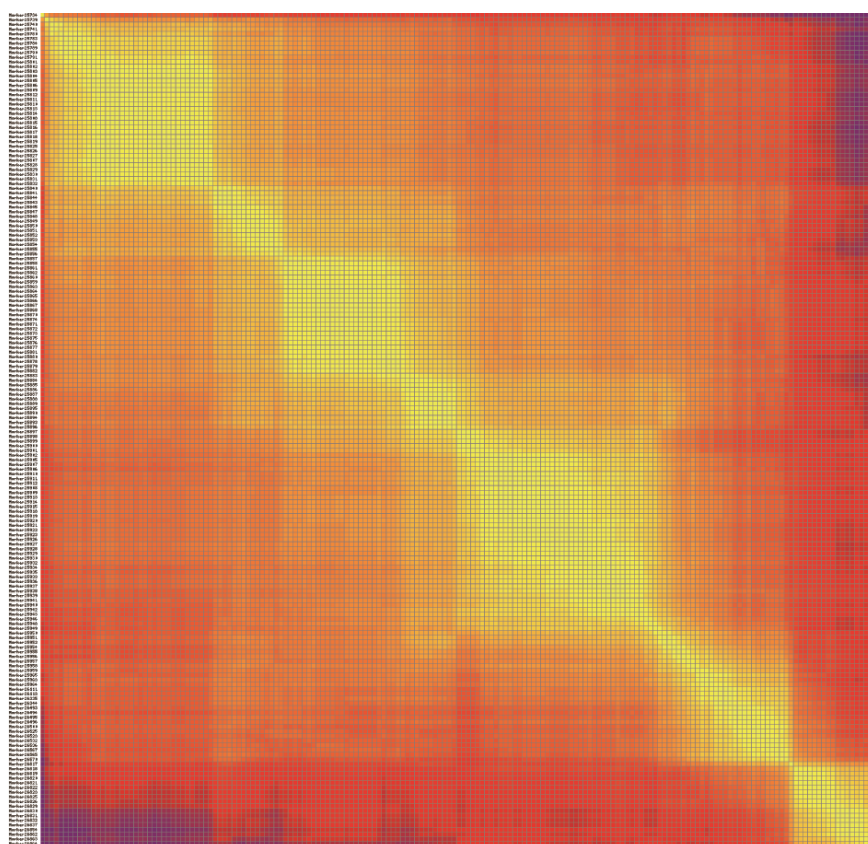
Chromosome A13



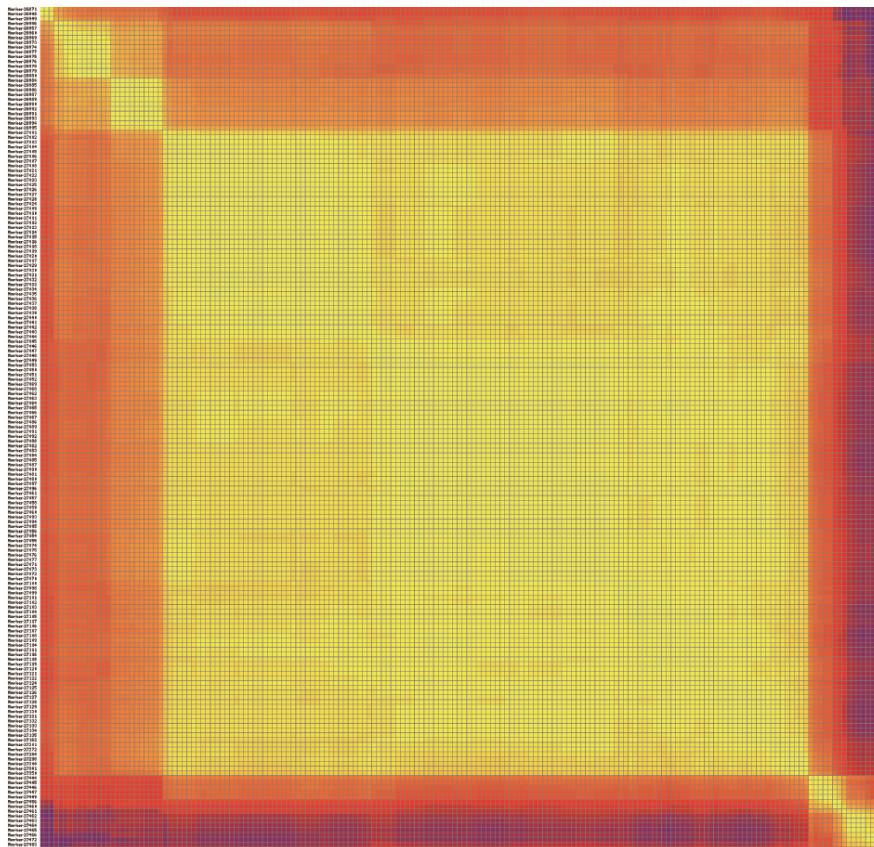
Chromosome D1



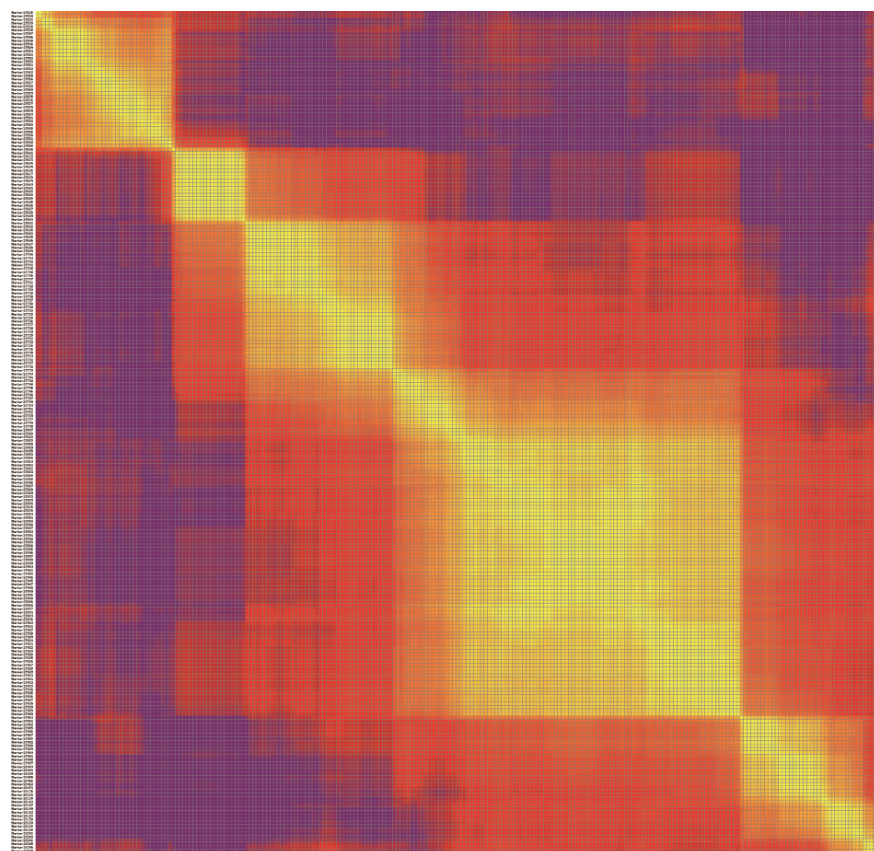
Chromosome D2



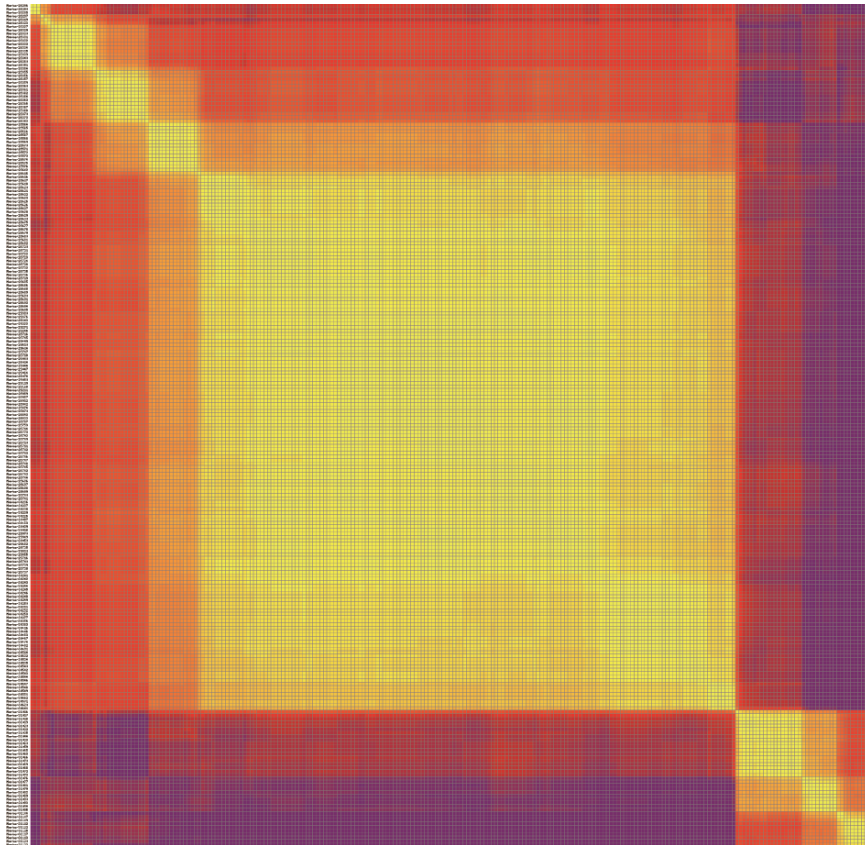
Chromosome D3



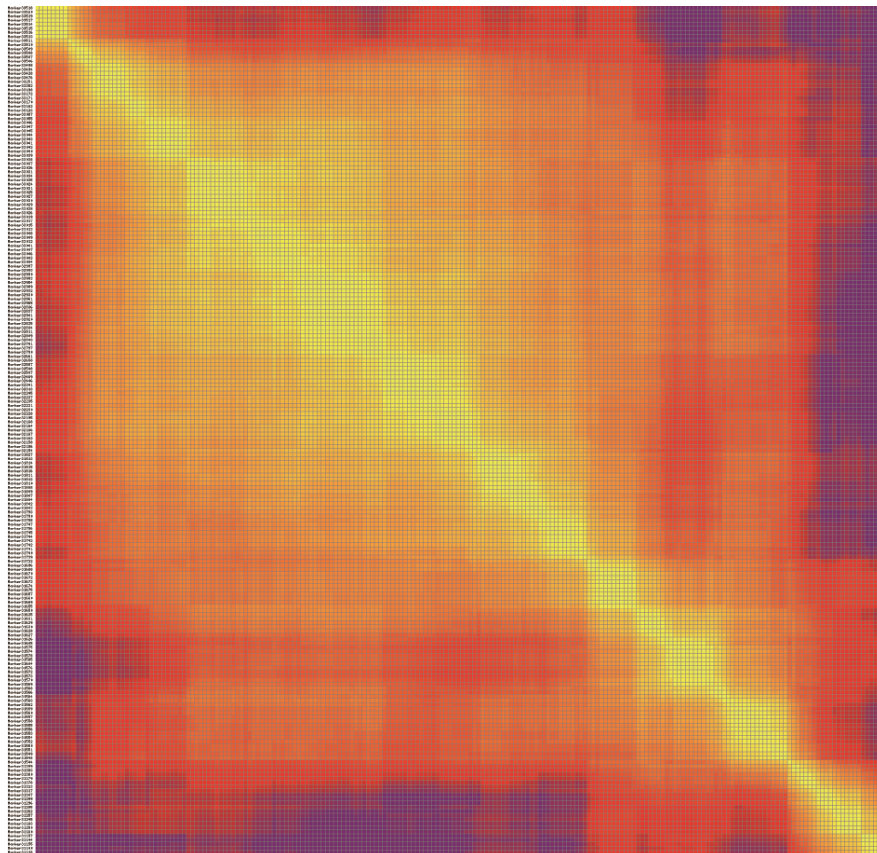
Chromosome D4



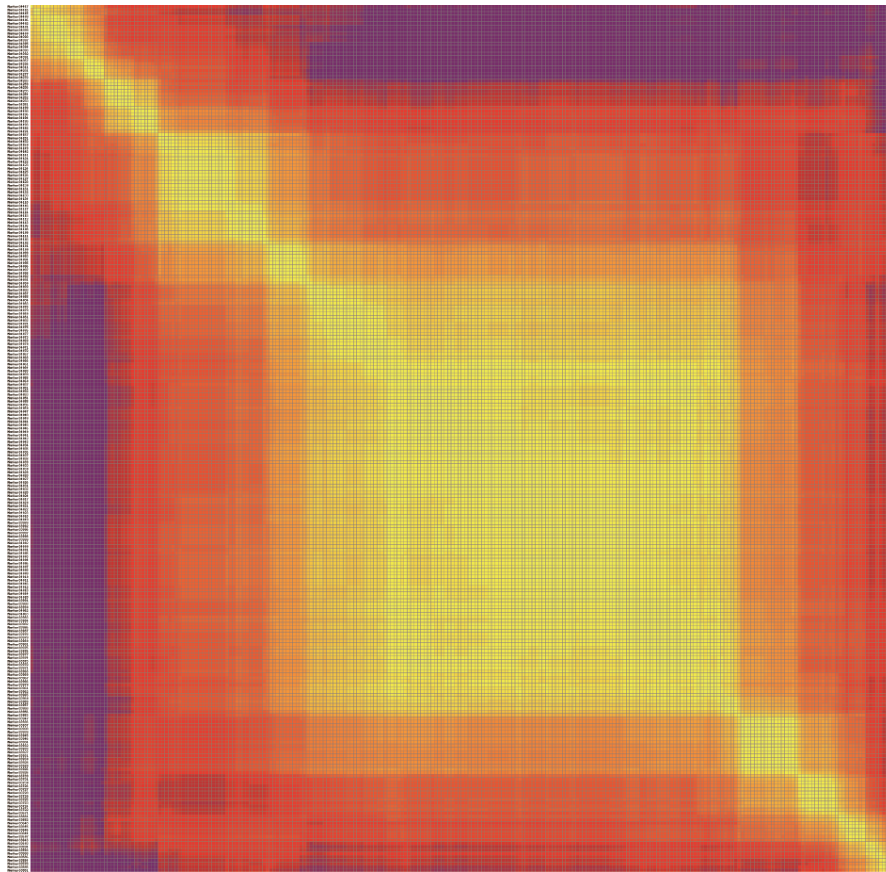
Chromosome D5



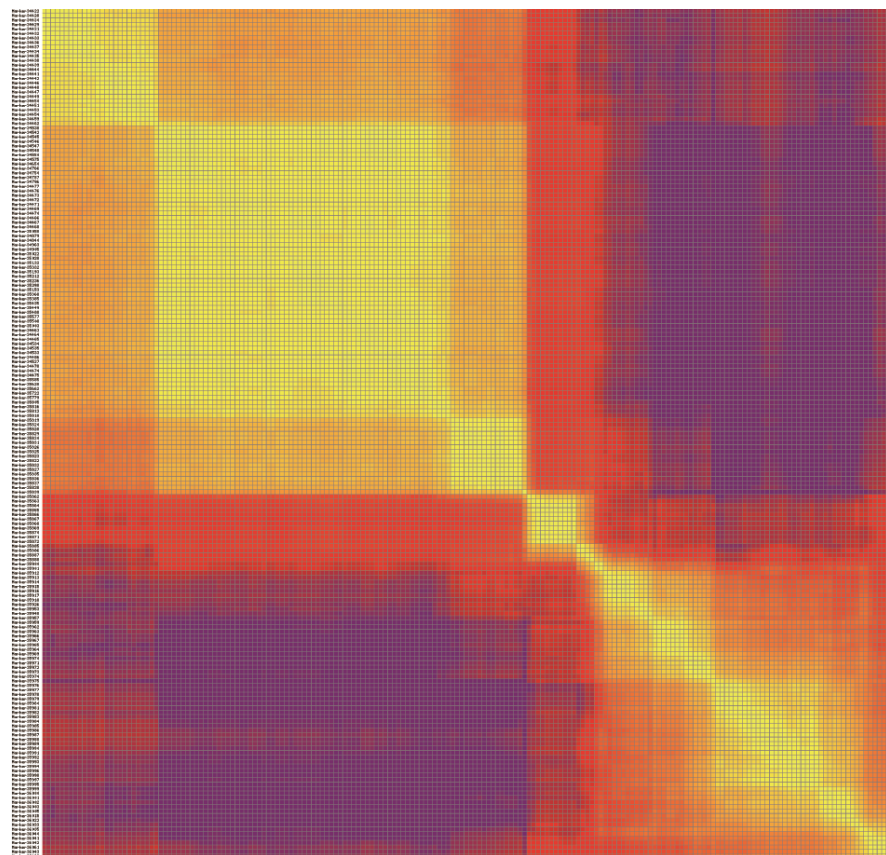
Chromosome D6



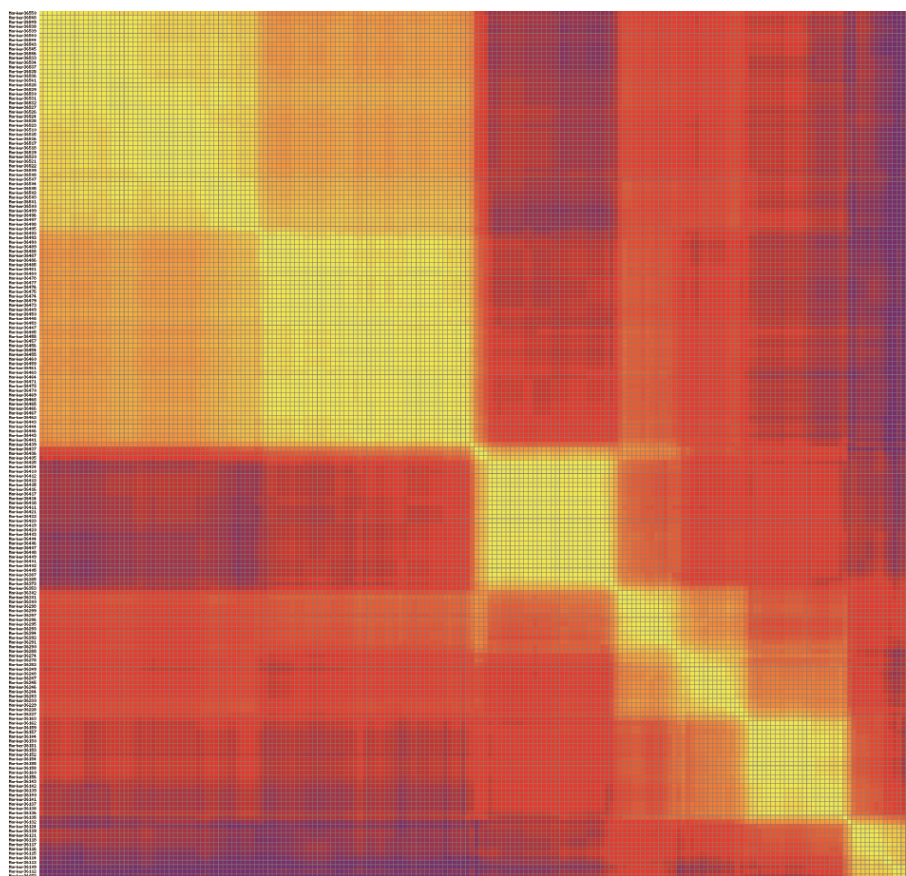
Chromosome D7



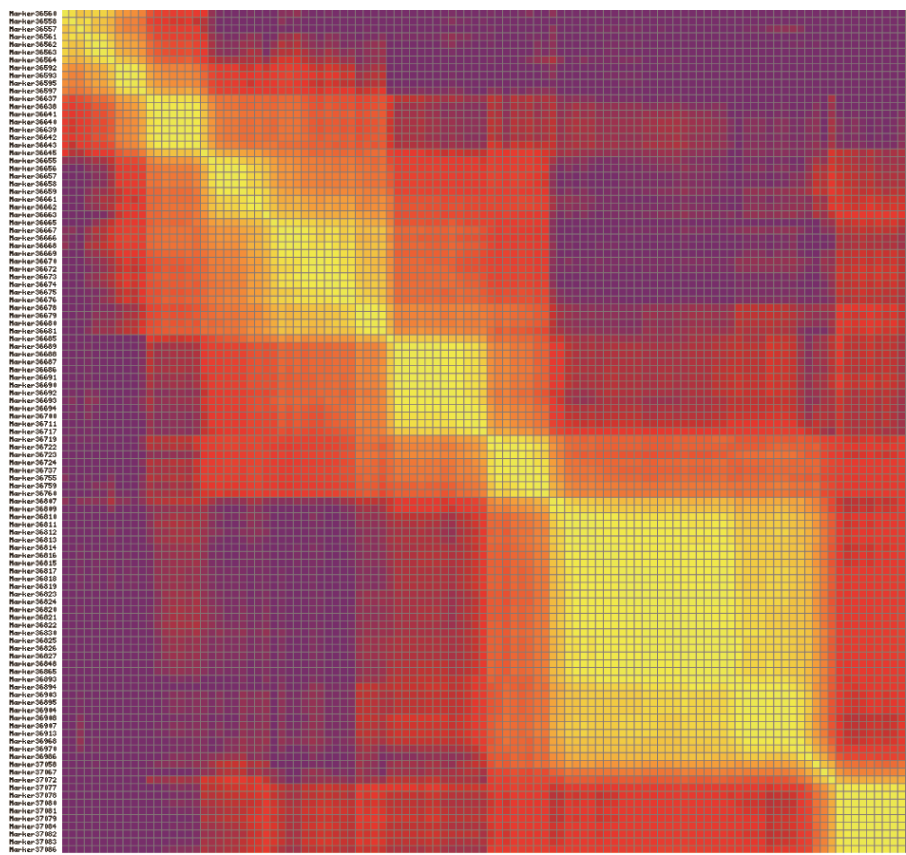
Chromosome D8



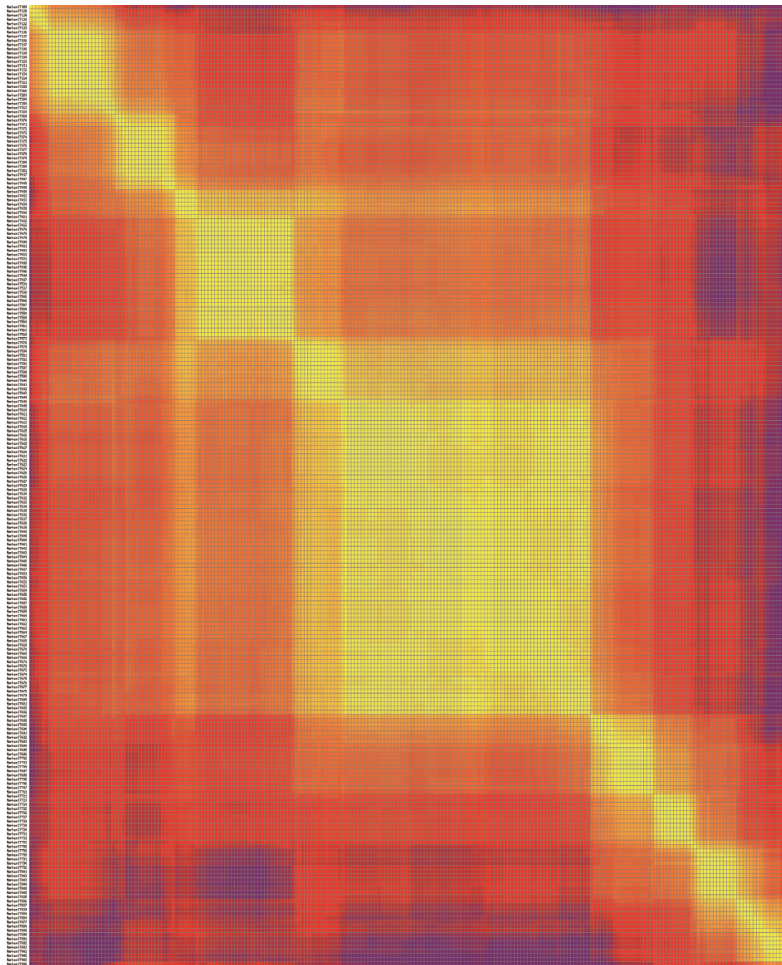
Chromosome D9



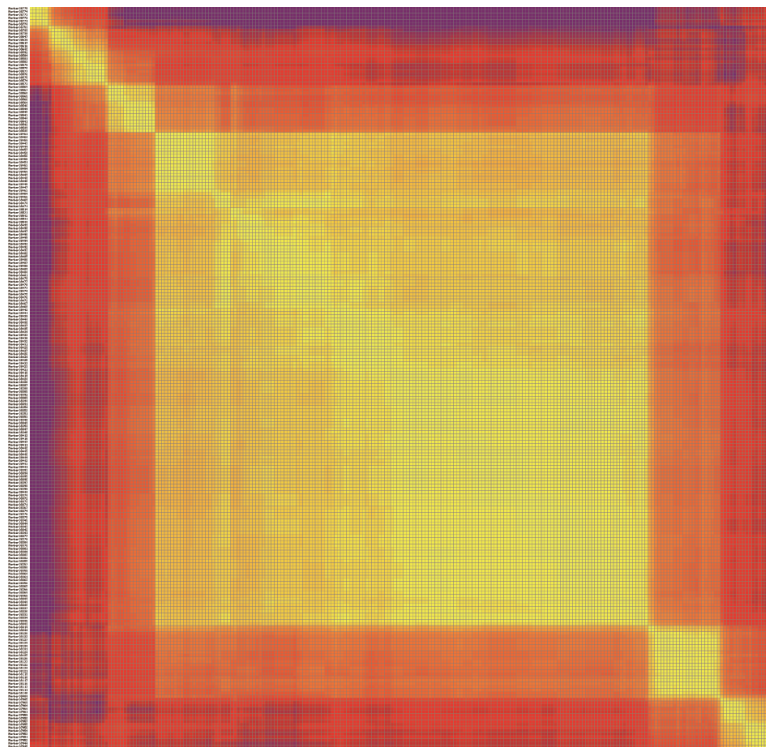
Chromosome D10



Chromosome D11



Chromosome D12



Chromosome D13