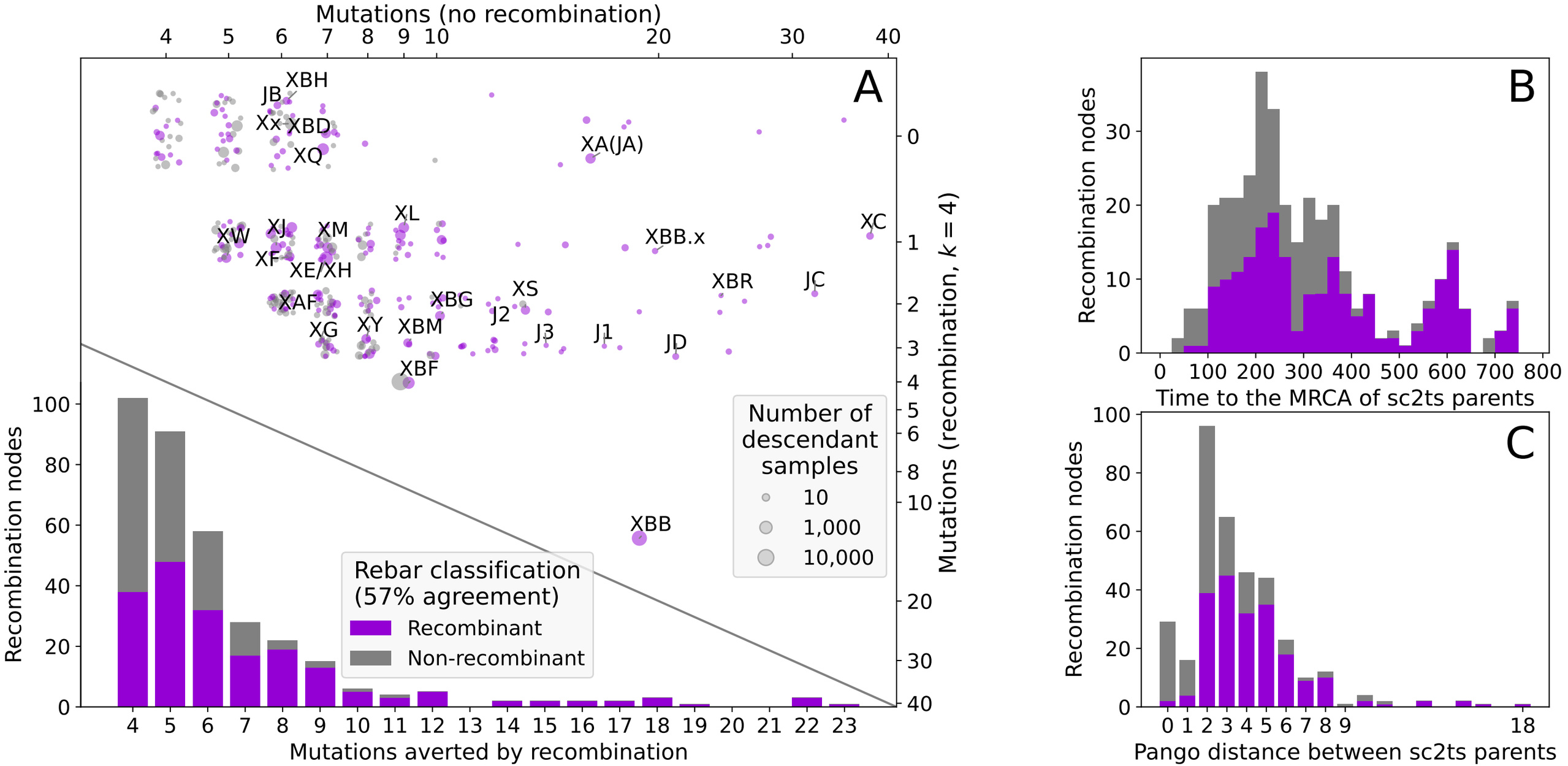
A
Mutations (no recombination)
4 5 6 7 8 9 10 20 30 40
Mutations (recombination, k = 4)
0 1 2 3 4 5 6 8 10 20 30 40
XBH
JB
Xx
XBD
XQ
XA(JA)
XL
XW
XJ
XM
XF
XE/XH
XBB.x
XC
XBR
JC
XS
XAF
XBG
J2
XG
XY
XBM
J3
J1
JD
XBF
XBB
Number of descendant samples
10
1,000
10,000
Rebar classification (57% agreement)
Recombinant
Non-recombinant
Recombination nodes
0 20 40 60 80 100
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Mutations averted by recombination
B
Recombination nodes
0 10 20 30
0 100 200 300 400 500 600 700 800
Time to the MRCA of sc2ts parents
C
Recombination nodes
0 20 40 60 80 100
0 1 2 3 4 5 6 7 8 9 18
Pango distance between sc2ts parents