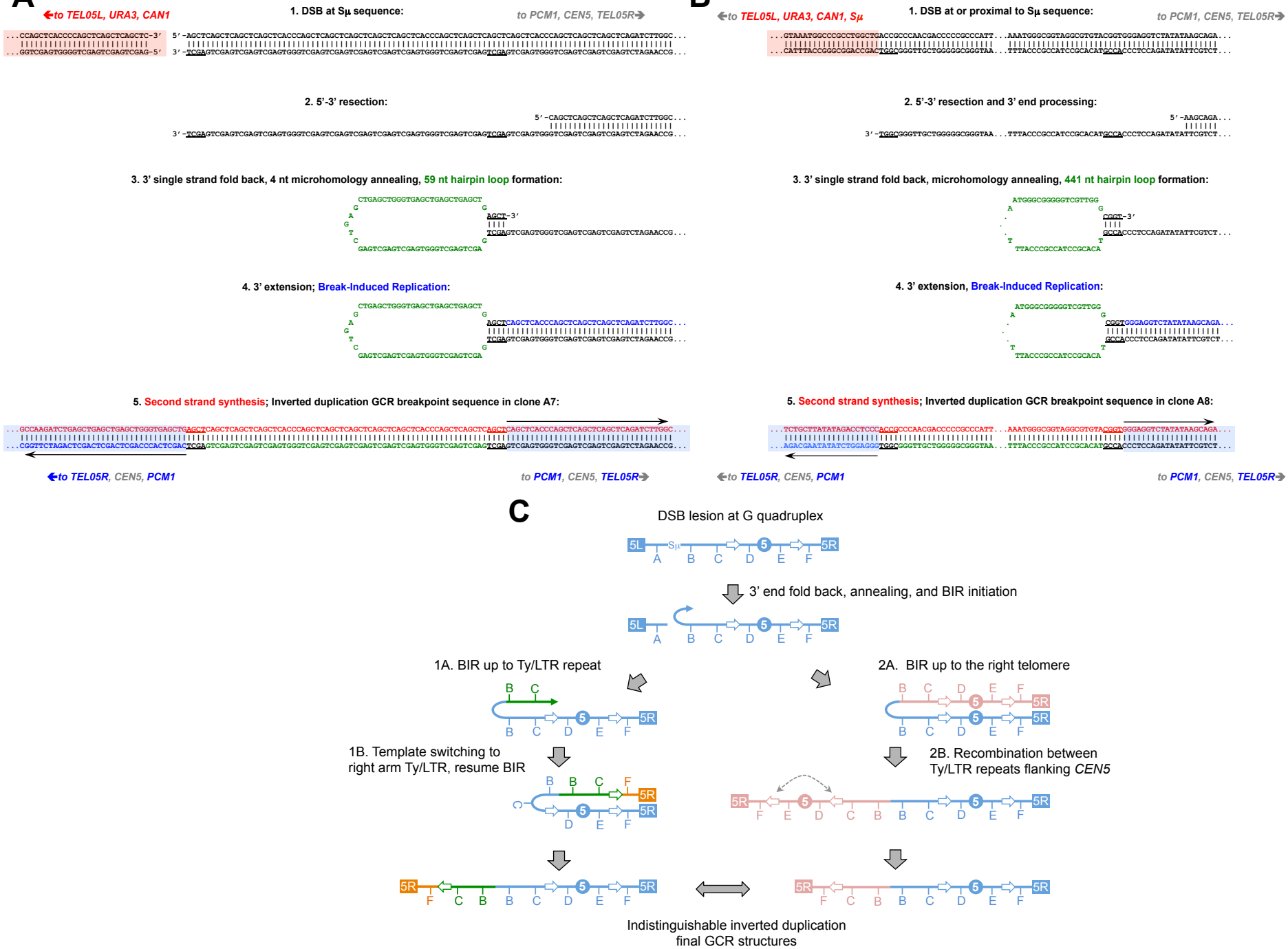
A
to TEL05L, URA3, CAN1
1. DSB at Sμ sequence:
to PCM1, CEN5, TEL05R
2. 5'-3' resection:
3. 3' single strand fold back, 4 nt microhomology annealing, 59 nt hairpin loop formation:
4. 3' extension; Break-Induced Replication:
5. Second strand synthesis; Inverted duplication GCR breakpoint sequence in clone A7:
to TEL05R, CEN5, PCM1
to PCM1, CEN5, TEL05R
B
to TEL05L, URA3, CAN1, Sμ
1. DSB at or proximal to Sμ sequence:
to PCM1, CEN5, TEL05R
2. 5'-3' resection and 3' end processing:
3. 3' single strand fold back, microhomology annealing, 441 nt hairpin loop formation:
4. 3' extension, Break-Induced Replication:
5. Second strand synthesis; Inverted duplication GCR breakpoint sequence in clone A8:
to TEL05R, CEN5, PCM1
to PCM1, CEN5, TEL05R
C
DSB lesion at G quadruplex
3' end fold back, annealing, and BIR initiation
1A. BIR up to Ty/LTR repeat
2A. BIR up to the right telomere
1B. Template switching to right arm Ty/LTR, resume BIR
2B. Recombination between Ty/LTR repeats flanking CEN5
Indistinguishable inverted duplication final GCR structures