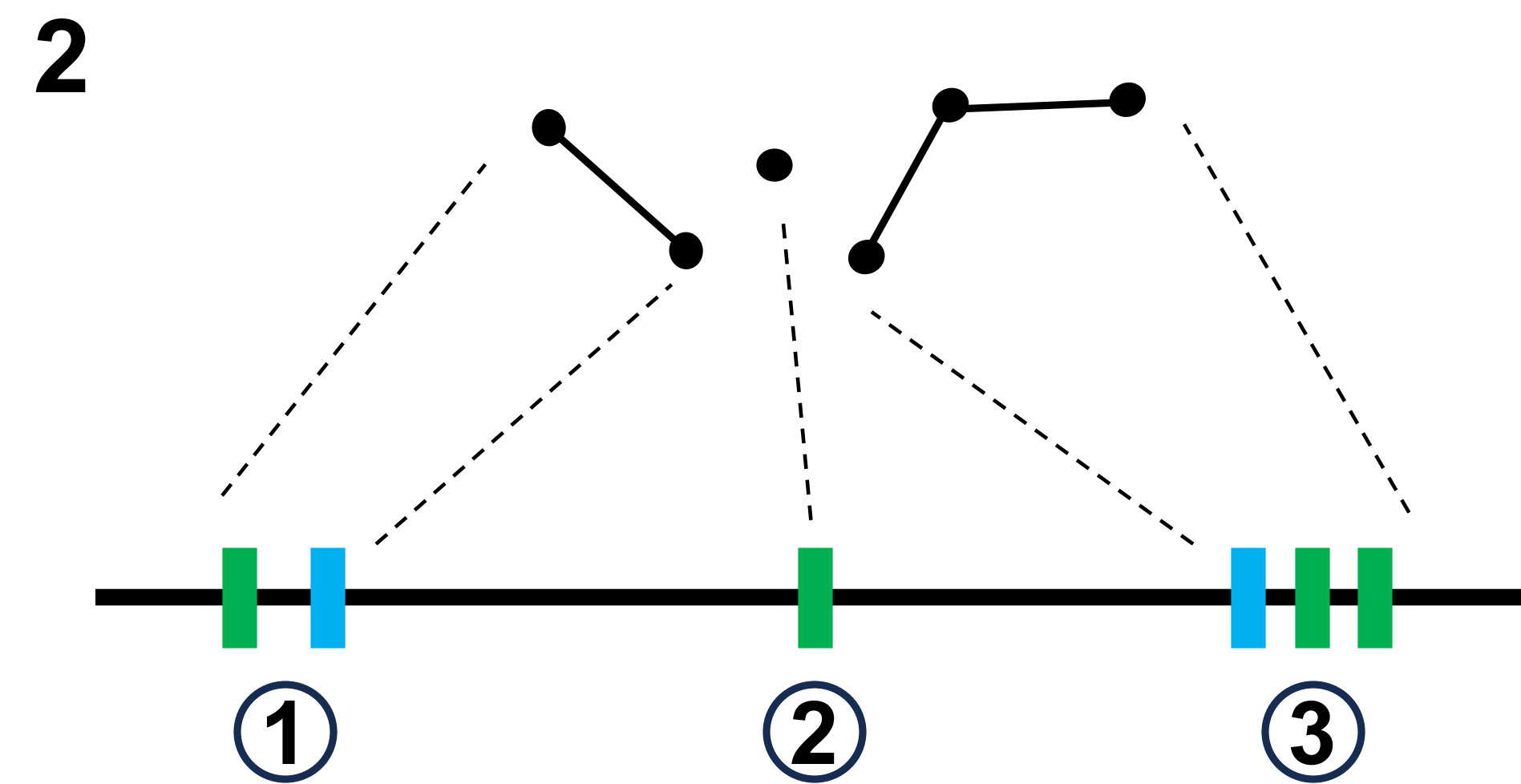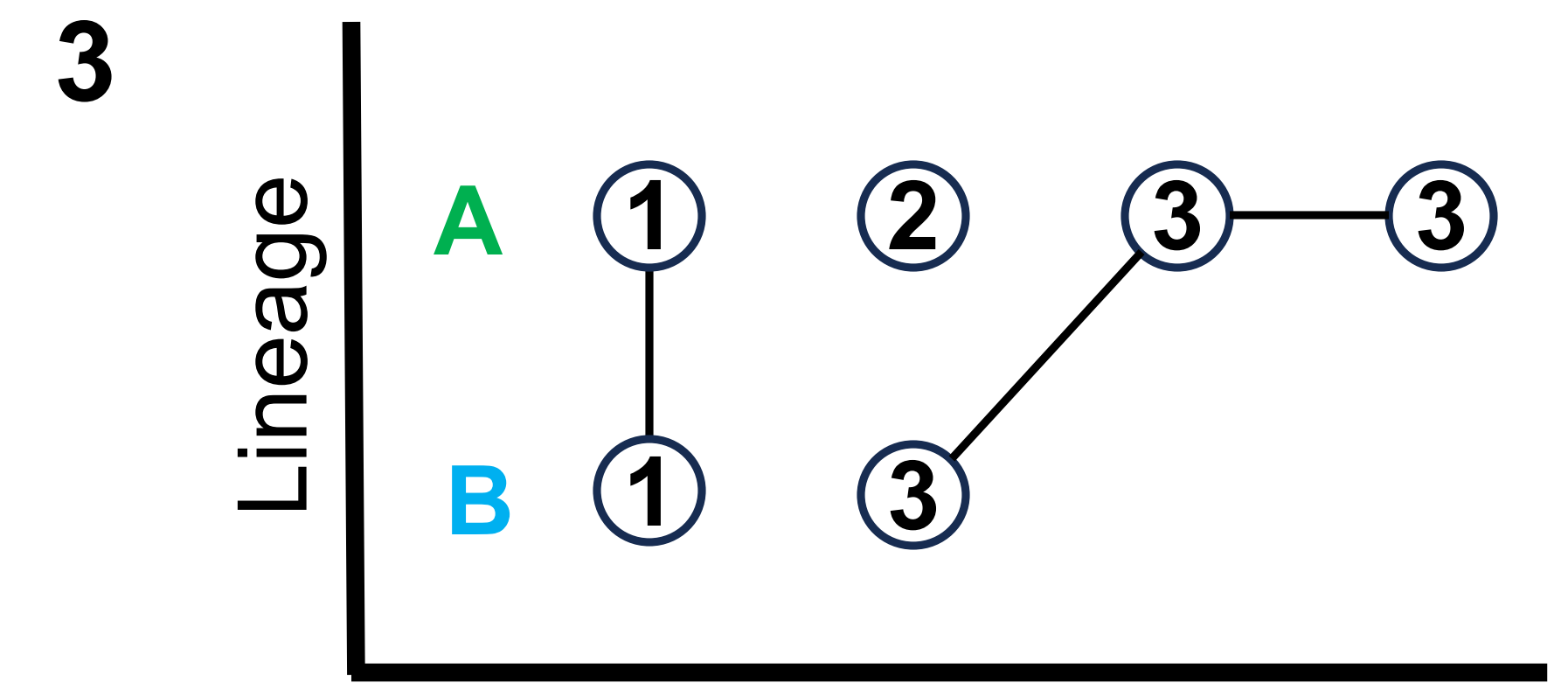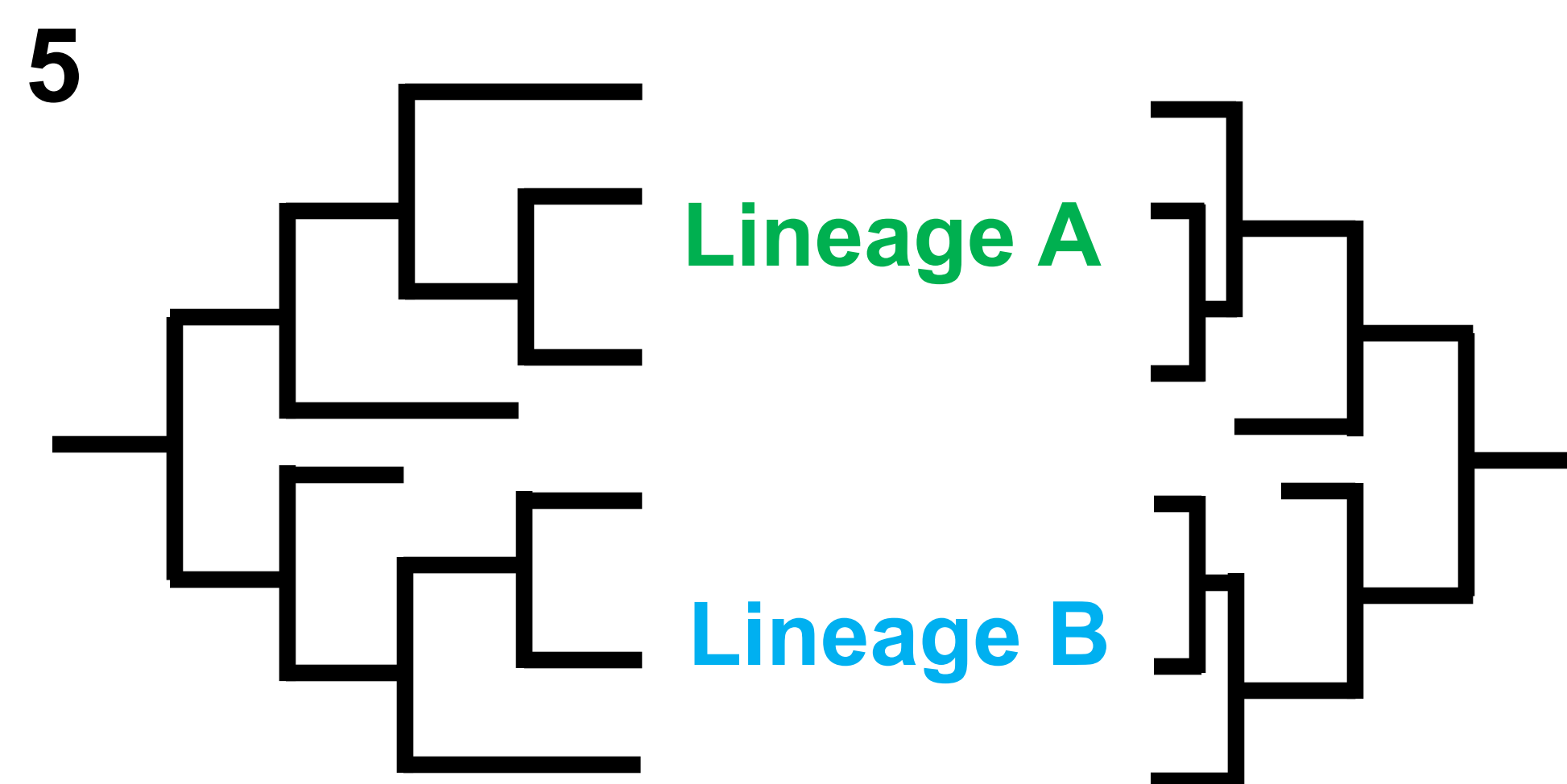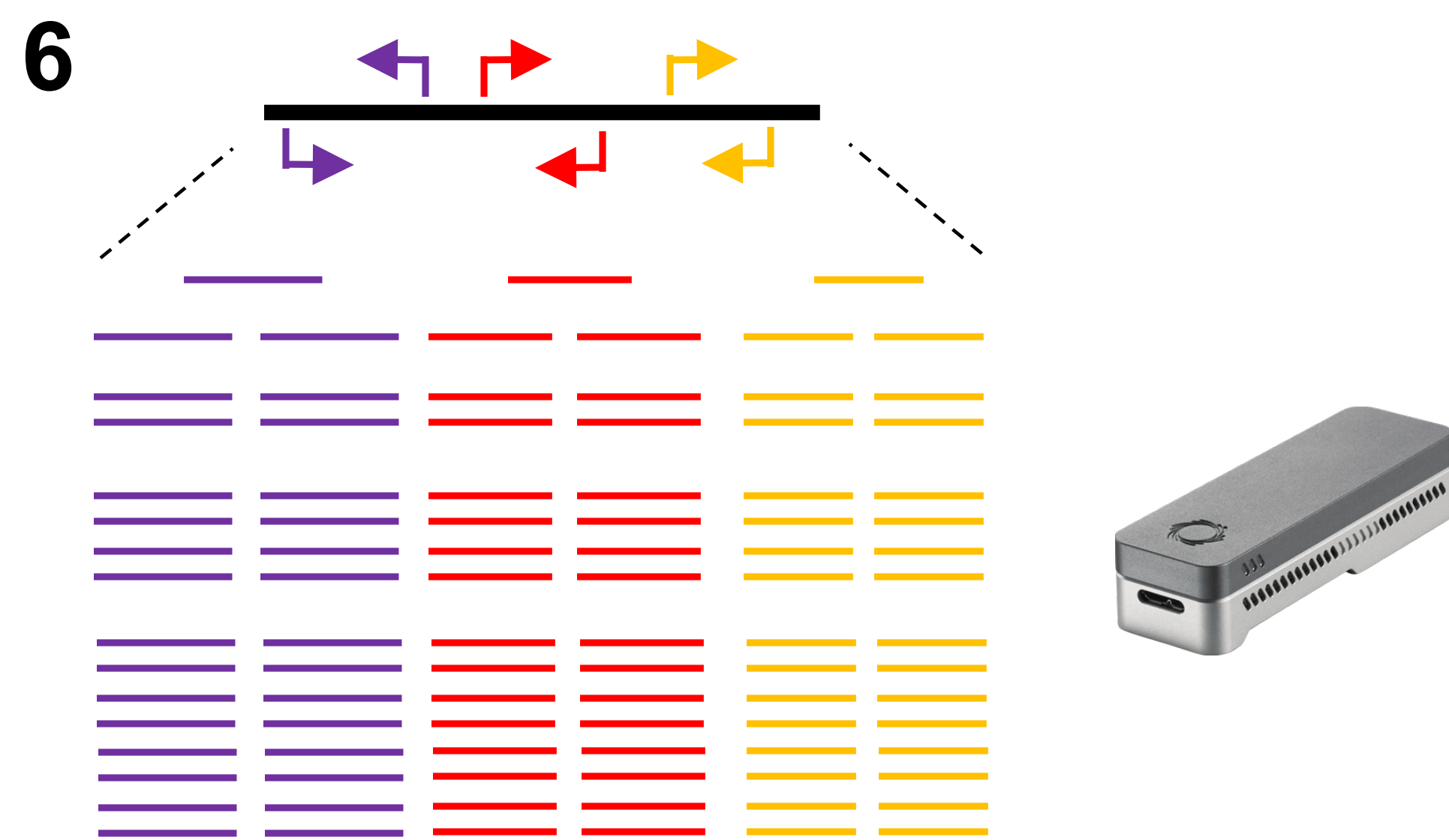**1** Identify lineage discriminatory SNPs

2 Network inference of positional clustering

3 Hierarchical selection algorithm to maximise allelic discrimination and minimise regions

4 Automated multiplex primer design

5 *In silico* validation

6 Laboratory PCR and sequencing