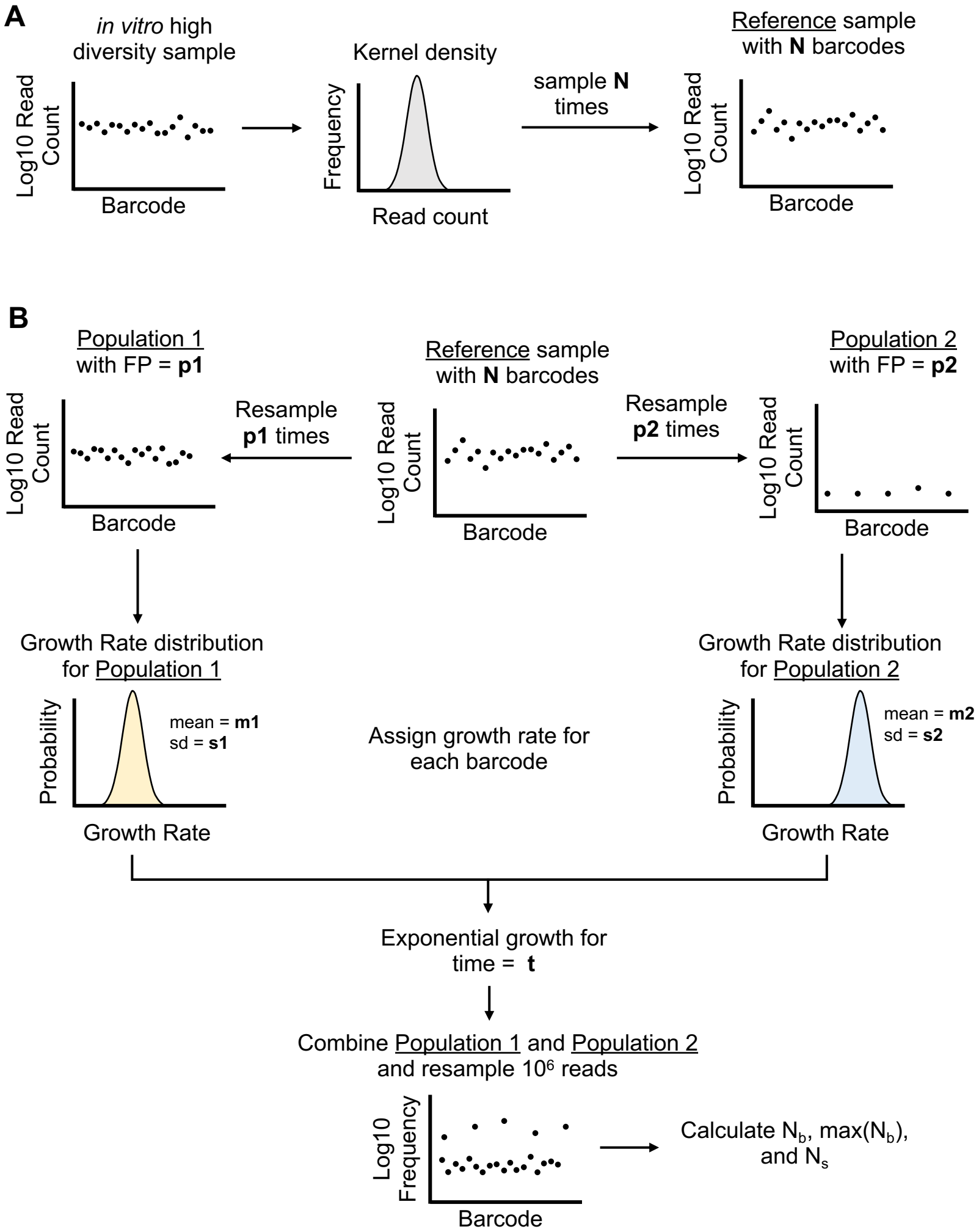
A
in vitro high diversity sample
Log10 Read Count
Barcode
Kernel density
Frequency
Read count
sample **N** times
Reference sample with **N** barcodes
Log10 Read Count
Barcode
B
Population 1 with FP = **p1**
Log10 Read Count
Barcode
Resample **p1** times
Reference sample with **N** barcodes
Log10 Read Count
Barcode
Resample **p2** times
Population 2 with FP = **p2**
Log10 Read Count
Barcode
Growth Rate distribution for Population 1
Probability
mean = **m1**
sd = **s1**
Growth Rate
Assign growth rate for each barcode
Growth Rate distribution for Population 2
Probability
mean = **m2**
sd = **s2**
Growth Rate
Exponential growth for time = **t**
Combine Population 1 and Population 2 and resample 10^6 reads
Log10 Frequency
Barcode
Calculate N_b, max(N_b), and N_s