### RAProject

Mingzhi Ye

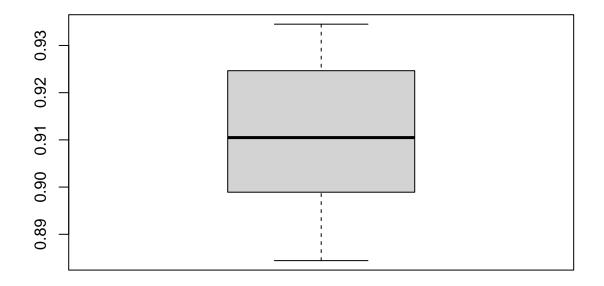
2022/10/10

### Calculate distances for samples

```
DistanceListFromEM=c()
DistanceListFromUN=c()
for(i in 1:20){
  sample=getSample()
  sample$high_confidence<-as.logical(sample$high_confidence)</pre>
  sample$productive<-as.logical(sample$productive)</pre>
  sample$full_length<-as.logical(sample$full_length)</pre>
  sample$is_cell<-as.logical(sample$is_cell)</pre>
  samplelist <- split(sample, f = sample$barcode)</pre>
  samplelist <- SplitDataFrameList(samplelist)</pre>
  EMpredicted <- clonoStats(samplelist, method = 'EM')</pre>
  distance1=getDistance(clonoNames(EMpredicted),clonoAbundance(EMpredicted)[,1])
  DistanceListFromEM[i] = distance1
  UNpredicted <- clonoStats(samplelist, method = 'unique')</pre>
  distance2=getDistance(clonoNames(UNpredicted),clonoAbundance(UNpredicted)[,1])
  DistanceListFromUN[i] = distance2
```

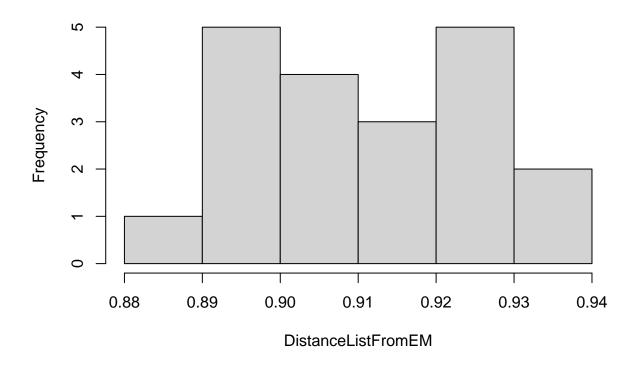
#### Visualize

```
boxplot(DistanceListFromEM)
```

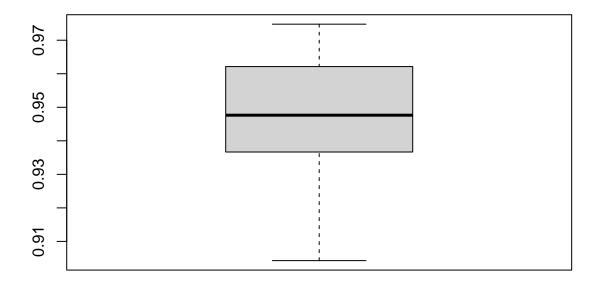


hist(DistanceListFromEM)

# **Histogram of DistanceListFromEM**

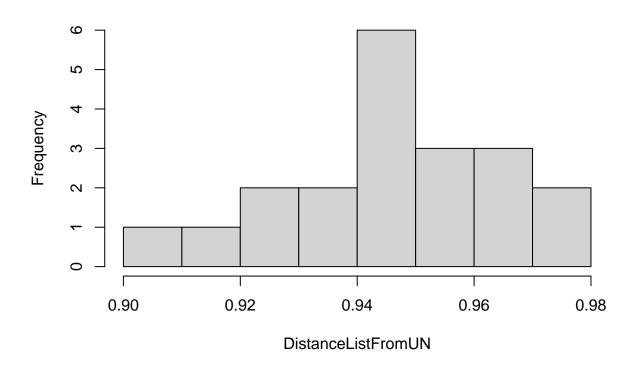


boxplot(DistanceListFromUN)



hist(DistanceListFromUN)

## **Histogram of DistanceListFromUN**



print(median(DistanceListFromEM))

## [1] 0.9104828

print(median(DistanceListFromUN))

## [1] 0.9476403

print(mean(DistanceListFromEM))

## [1] 0.9109828

print(mean(DistanceListFromUN))

## [1] 0.9467265