Constructing the map from 'corrected RMA' spreadsheet to CEL files

VJ Carey (following concepts of Baggerly and Coombs)

April 19, 2009

```
> library(dressCheck)
> data(corrp) # direct read of corrected RMA xls/csv
> data(c119) # justRMA of CELs
> c119r = c119[rownames(corrp),] # some genes omitted in corrected RMA, align
> badn = sampleNames(DrAsGiven)
> getMap = function(nm) { # this will associate column in corrp to column in c119r
+ x9 = corrp[,nm]
+ an = as.numeric
+ cc = sapply(1:length(sampleNames(c119r)), function(x) cor(an(x9), an(exprs(c119r)))
+ sampleNames(c119)[which.max(cc)]
+ }
> map = sapply(badn, getMap)
> table(table(map)) # some samples don't uniquely map
113
     3
> options(digits=4)
> cor(cbind(corrp[,c("M3514", "M4161")],
    exprs(c119r)[,c("M3514", "M4161")]))
      M3514 M4161 M3514 M4161
M3514 1.0000 0.9580 0.9972 0.9591
M4161 0.9580 1.0000 0.9595 0.9558
M3514 0.9972 0.9595 1.0000 0.9619
M4161 0.9591 0.9558 0.9619 1.0000
> # from the above we conclude M3514 maps to M3514
> cor(cbind(corrp[,c("D1837", "M359", "M1572")],
    exprs(c119r)[,c("D1837", "M359", "M1572")]))
```

M4161 0.9587 0.9553 1.0000 0.9546 0.9532 0.9558 M2070 0.9581 0.9508 0.9546 1.0000 0.9519 0.9580 M444 0.9673 0.9520 0.9532 0.9519 1.0000 0.9671 M4161 0.9977 0.9612 0.9558 0.9580 0.9671 1.0000