uk3

Here we plot the correlation matrix and the first 3 eigenvectors of Uk3.

```r
library('knitr')

knitr::opts_chunk$set(cache=TRUE)
opts_chunk$set(fig.path = "/Users/sarahurbut/Dropbox/PaperEdits/Paper/Figures/")
covmat=readRDS("../Data/covmatAug13withED.rds")

z.stat=read.table("../Data/maxz.txt")
names=colnames(z.stat)
pis=readRDS("../Data/pisAug13withED.rds")$pihat
pi.mat=matrix(pis,ncol=54,nrow=22,byrow = T)
```
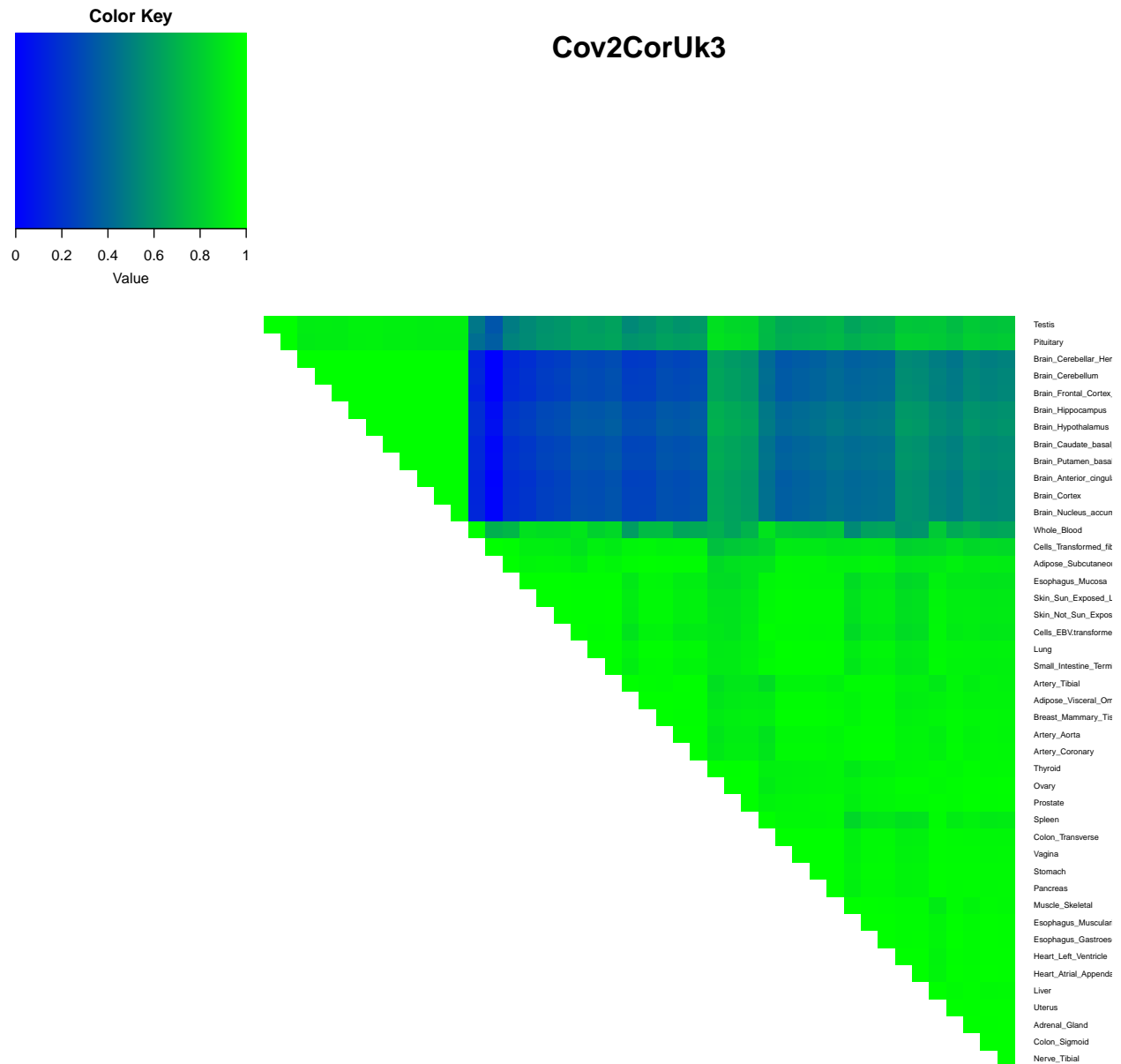
```r
library(gplots)
library(ggplot2)
library('colorRamps')
#install.packages("fields")
library(fields)
k=3
hclust.2=function (d, method = "average", members = NULL) {hclust(d, method, members)}
  x=cov2cor(covmat[[k]])
x[x<0]=0
  colnames(x)=names
  rownames(x)=names


h=read.table("../Analysis/uk3rowindices.txt")[,1]
```

heatmap:

```r
smat=(x[h,h])
smat[lower.tri(smat)] <- NA


heatmap.2(smat,#symm=TRUE,
          Rowv=FALSE,Colv=FALSE,
          dendrogram="none",density="none",trace="none",#col=redblue,
          col=blue2green(256),
          main=paste0("Cov2CorUk3"),
          cexRow=0.5,cexCol=0.5,cex.main=0.5,labCol="")
```
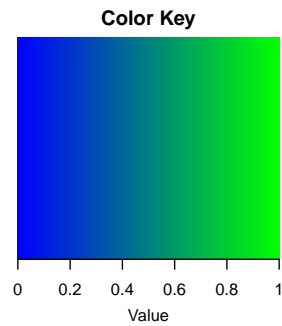
Color Key

Value: 0 0.2 0.4 0.6 0.8 1

Cov2CorUk3

Testis
Pituitary
Brain_Cerebellar_Hen
Brain_Cerebellum
Brain_Frontal_Cortex
Brain_Hippocampus
Brain_Hypothalamus
Brain_Caudate_basal
Brain_Putamen_basal
Brain_Anterior_cinguli
Brain_Cortex
Brain_Nucleus_accum
Whole_Blood
Cells_Transformed_fib
Adipose_Subcutaneo
Esophagus_Mucosa
Skin_Sun_Exposed_L
Skin_Not_Sun_Expos
Cells_EBV.transforme
Lung
Small_Intestine_Term
Artery_Tibial
Adipose_Visceral_Om
Breast_Mammary_Tis
Artery_Aorta
Artery_Coronary
Thyroid
Ovary
Prostate
Spleen
Colon_Transverse
Vagina
Stomach
Pancreas
Muscle_Skeletal
Esophagus_Muscular
Esophagus_Gastroes
Heart_Left_Ventricle
Heart_Atrial_Append
Liver
Uterus
Adrenal_Gland
Colon_Sigmoid
Nerve_Tibial

As square:

```
smat=(x[h,h])
```

```
heatmap.2(smat,#symm=TRUE,
         Rowv=FALSE,Colv=FALSE,
         dendrogram="none",density="none",trace="none",#col=redblue,
         col=blue2green(256),
         main=paste0("Cov2CorUk3"),
         cexRow=0.5,cexCol=0.5,cex.main=0.5,labCol="")
```
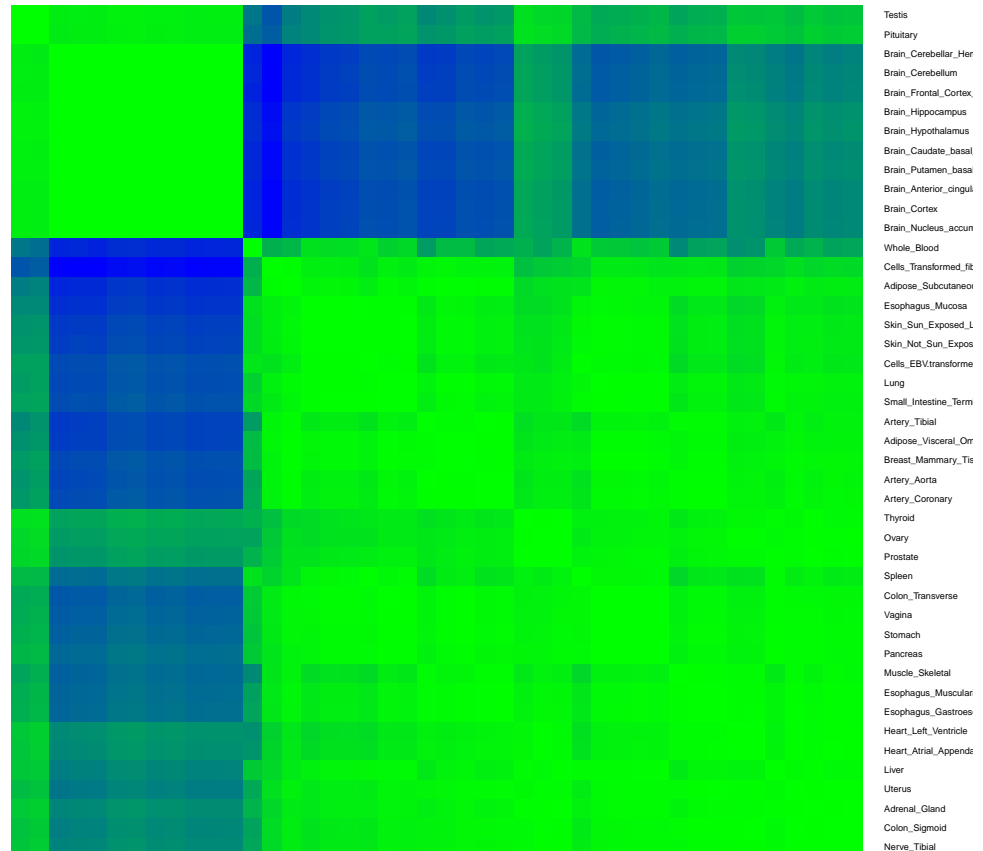
Color Key

Cov2CorUk3

Testis
Pituitary
Brain_Cerebellar_Hen
Brain_Cerebellum
Brain_Frontal_Cortex
Brain_Hippocampus
Brain_Hypothalamus
Brain_Caudate_basal
Brain_Putamen_basa
Brain_Anterior_cinguli
Brain_Cortex
Brain_Nucleus_accun
Whole_Blood
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Artery_Coronary
Thyroid
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Spleen
Colon_Transverse
Vagina
Stomach
Pancreas
Muscle_Skeletal
Esophagus_Muscular
Esophagus_Gastroes
Heart_Left_Ventricle
Heart_Atrial_Appenda
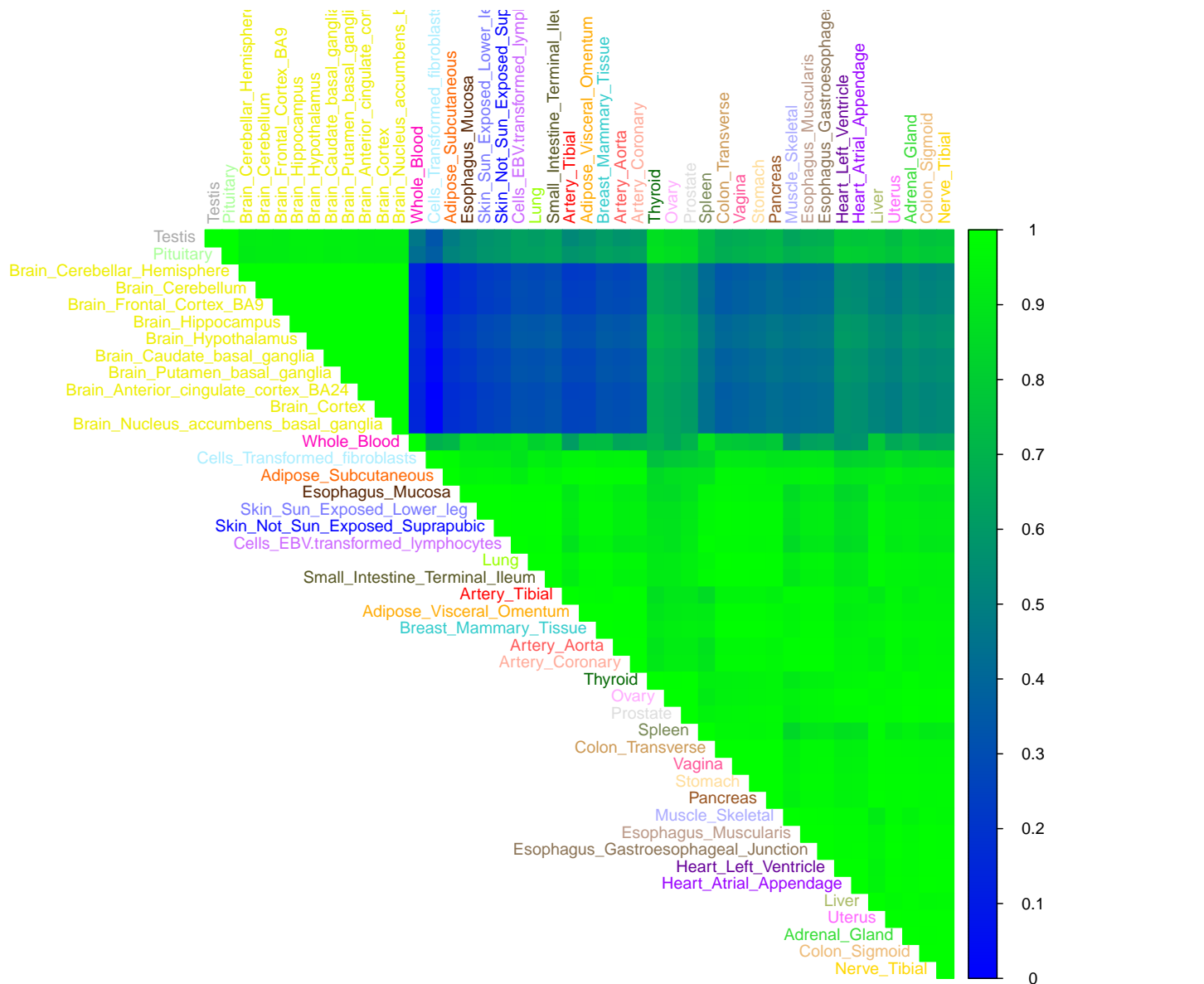Liver
Uterus
Adrenal_Gland
Colon_Sigmoid
Nerve_Tibial

```
missing.tissues=c(7,8,19,20,24,25,31,34,37)
color.gtex=read.table("../Data/GTExColors.txt",sep = '\t', comment.char = '')[-missing.tissues,]
col = as.character(color.gtex[,2])

library('corrplot')


corrplot((x[h,h]),type="upper",cl.lim=c(0,1),tl.col=col[h],tl.cex=0.8,method="color",col=rep(blue2green
```

```
## Warning in ind1:ind2: numerical expression has 2 elements: only the first
## used
```

```
## Warning in ind1:ind2: numerical expression has 2 elements: only the first
## used
```

3

```
colnames(x)=NULL
rownames(x)=rep(".",44)
corrplot((x[h,h]),type="upper",cl.lim=c(0,1),tl.col=col[h],tl.cex=8,method="color",col=rep(blue2green(25
```

```
## Warning in ind1:ind2: numerical expression has 2 elements: only the first
## used

## Warning in ind1:ind2: numerical expression has 2 elements: only the first
## used
```