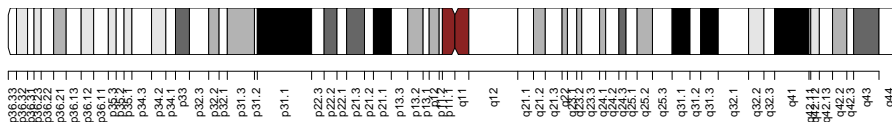# Plotting Idiograms

Rob Scharpf

April 11, 2014

1   Simple Usage

```
> library(SNPchip)
```

Plot an idiogram for chromosome 1 with labels for the bands on the x-axis.

```
> plotIdiogram("1", build="hg19", cex=0.8)
```


Suppressing labels:

```
> plotIdiogram("1", build="hg19", cex=0.8, label.cytoband=FALSE)
```


With user-definded y-axis limits and y-coordinates for the idiogram:

```
> plotIdiogram("1", build="hg19", cex=0.8, label.cytoband=FALSE, ylim=c(0,1), cytoband.ycoords=c(0.1, 0.
```


Plot an idiogram for all chromosomes.

```
> library(oligoClasses)
> sl <- getSequenceLengths("hg19")[c(paste("chr", 1:22, sep=""), "chrX", "chrY")]
> ybottom <- seq(0, 1, length.out=length(sl)) - 0.01
> ytop <- seq(0, 1, length.out=length(sl)) + 0.01
> for(i in seq_along(sl)){
+         chr <- names(sl)[i]
+         if(i == 1){
+                 plotIdiogram("1", build="hg19", cex=0.8, label.cytoband=FALSE, ylim=c(-0.05,1.05), cy
+                              xlim=c(0, max(sl)))
+         }
```
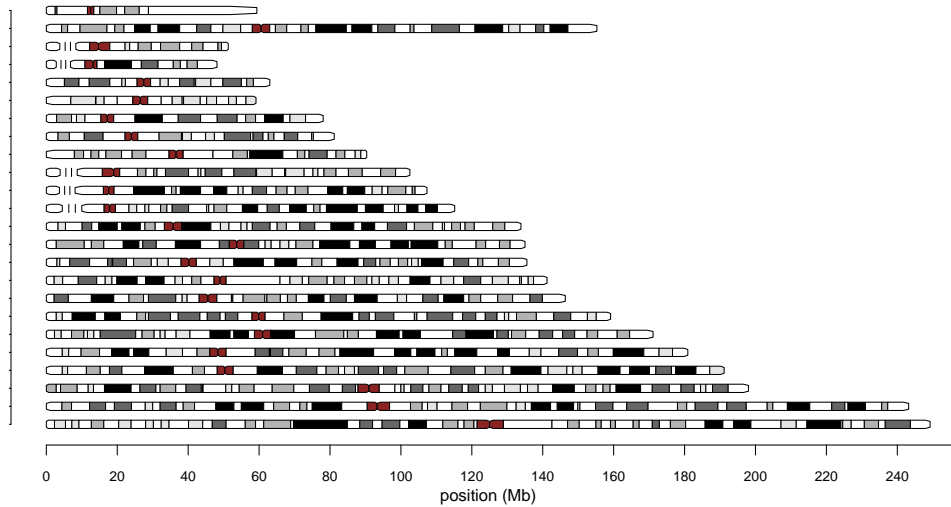
```
+          if(i > 1){
+                    plotIdiogram(names(sl)[i], build="hg19", cex=0.8, label.cytoband=FALSE, cytoband.ycoo
+          }
+ }
> axis(1, at=pretty(c(0, max(sl)), n=10), labels=pretty(c(0, max(sl)), n=10)/1e6, cex.axis=0.8)
> mtext("position (Mb)", 1, line=2)
> par(las=1)
> axis(2, at=ybottom+0.01, names(sl), cex.axis=0.6)
```


2 Session Information

The version number of R and packages loaded for generating the vignette were:

- R version 3.1.0 RC (2014-04-02 r65358), `x86_64-apple-darwin10.8.0`

- Locale: `en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8`

- Base packages: base, datasets, graphics, grDevices, methods, stats, utils

- Other packages: oligoClasses 1.26.0, SNPchip 2.10.0

- Loaded via a namespace (and not attached): affyio 1.32.0, Biobase 2.24.0, BiocGenerics 0.10.0, BiocInstaller 1.14.0, Biostrings 2.32.0, bit 1.1-12, codetools 0.2-8, ff 2.2-13, foreach 1.4.2, GenomeInfoDb 1.0.0, GenomicRanges 1.16.0, grid 3.1.0, IRanges 1.21.45, iterators 1.0.7, lattice 0.20-29, parallel 3.1.0, stats4 3.1.0, tools 3.1.0, XVector 0.4.0, zlibbioc 1.10.0