

#get files from here:

ftp://ftp.ncbi.nlm.nih.gov/snp/organisms/human_9606_b150_GRCh37p13/VCF/

module load tools/gtc2vcf

#META_pvalues_combined_final comes from previous META analysis of Gokind and EDIC cohorts

```
awk '{ print $1}' META_pvalues_combined_final > META_rs
```

```
awk '{ print $1,$4}' META_pvalues_combined_final > META_pvalues
```

```
vcftools --gzvcf 00-All.vcf.gz --snps META_rs --recode --out META_RSID
```

```
awk '{ print $1,$2, $3 }' META_RSID.recode.vcf > META_RSID
```

```
sed '/^#/d' META_RSID > META_RSID.F
```

```
library(qqman)
```

```
library(data.table)
```

```
a=fread("META_pvalues", header=T)
```

```
b=fread("META_RSID.F", header=F)
```

```
colnames(b)=c("CHR","POS","MARKER")
```

```
m=merge(a,b,by="MARKER")
```

```
m1=na.omit(m)
```

```
write.table(m1, file="meta_b37_chr_pos_rsid", sep = " ", row.names = FALSE, col.names = TRUE,quote=FALSE)
```

#manhattan_7253 is 7253 Glucose response EQTLs from META analysis taken from meta_b37_chr_pos_rsid

```
df=fread("manhattan_7253", header=T)
```

```
manhattan(df, chr="CHR", bp="POS", snp="SNP", p="METAP",annotatePval = 1e-5,ylim=c(0,6))
```