

RA_project

2/24/2021

```
library(knitr)
library(haploR)
```

```
## Warning: package 'haploR' was built under R version 4.0.3
```

rs734094

```
df <- as.data.frame(read.table("SNPs/rs734094/proxy72500.txt", header = TRUE))
variants_in_highLD <- df[which(df$r2>0.9),]
list_of_rs <- variants_in_highLD[,1]
```

```
x <- queryHaploreg(query=list_of_rs)
```

```
if(length(x)!=0) {
  subset.high.LD <- x[as.numeric(x$r2) > 0.9,
                     c("rsID", "r2", "chr", "is_query_snp", "pos_hg38", "ref", "alt")]
  kable(subset.high.LD)
}
```

rsID	r2	chr	is_query_snp	pos_hg38	ref	alt
rs2074019	0.93	11	0	2297637	A	G
rs2074019	0.96	11	0	2297637	A	G
rs2074019	0.99	11	0	2297637	A	G
rs2074019	1.00	11	1	2297637	A	G
rs2074020	0.94	11	0	2297638	G	A
rs2074020	0.97	11	0	2297638	G	A
rs2074020	1.00	11	1	2297638	G	A
rs2074020	0.99	11	0	2297638	G	A
rs2074023	0.91	11	0	2304351	C	T
rs2521267	1.00	11	1	2298703	C	T
rs2521267	0.97	11	0	2298703	C	T
rs2521267	0.96	11	0	2298703	C	T
rs2521267	0.97	11	0	2298703	C	T
rs734094	0.97	11	0	2301990	G	A
rs734094	1.00	11	1	2301990	G	A
rs734094	0.93	11	0	2301990	G	A
rs734094	0.94	11	0	2301990	G	A

rs2476601

```
df <- as.data.frame(read.table("SNPs/rs2476601/proxy15461.txt", header = TRUE))
variants_in_highLD <- df[which(df$r2>0.9),]
list_of_rs <- variants_in_highLD[,1]
x <- queryHaploreg(query=list_of_rs)
```

```
if(length(x)!=0) {
  subset.high.LD <- x[as.numeric(x$is_query_snp) == 1,
    c("rsID", "r2", "chr", "pos_hg38", "is_query_snp", "ref", "alt")]
  kable(subset.high.LD)
}
```

rsID	r2	chr	pos_hg38	is_query_snp	ref	alt
rs2476601	1	1	113834946	1	A	G
rs6679677	1	1	113761186	1	C	A

rs34695944

```
df <- as.data.frame(read.table("SNPs/rs34695944/proxy69152.txt", header = TRUE))
variants_in_highLD <- df[which(df$r2>0.9),]
list_of_rs <- variants_in_highLD[,1]
x <- queryHaploreg(query=list_of_rs)
```

```
if(length(x)!=0) {
  subset.high.LD <- x[as.numeric(x$is_query_snp) == 1,
    c("rsID", "r2", "chr", "is_query_snp", "pos_hg38", "ref", "alt")]
  kable(subset.high.LD)
}
```

rsID	r2	chr	is_query_snp	pos_hg38	ref	alt
rs12466919	1	2	1	60865723	C	T
rs13017599	1	2	1	60937196	G	A
rs13019590	1	2	1	60872285	A	C
rs13031237	1	2	1	60908994	G	T
rs13031721	1	2	1	60879336	A	G
rs138204386	1	2	1	60930668	TAAAC	T
rs140938600	1	2	1	60878920	TG	T
rs34518355	1	2	1	60926668	G	A
rs34695944	1	2	1	60897715	T	C
rs35878604	1	2	1	60849968	TC	T
rs55963299	1	2	1	60870448	A	G
rs56232022	1	2	1	60943762	TTG	T
rs62149416	1	2	1	60856371	T	C
rs62149417	1	2	1	60856428	G	A
rs67574266	1	2	1	60881694	G	A
rs76659990	1	2	1	60878923	T	C

all the three (chr 11,1 2): rs34695944, rs2476601 and rs734094

```
x <- queryHaploreg(query=c("rs34695944","rs2476601","rs734094"))
```

```
if(length(x)!=0) {
  subset.high.LD <- x[as.numeric(x$r2) > 0.9,
    c("rsID", "r2", "chr", "is_query_snp", "pos_hg38", "ref", "alt")]
  kable(subset.high.LD)
}
```

rsID	r2	chr	is_query_snp	pos_hg38	ref	alt
rs12466919	0.94	2	0	60865723	C	T
rs13017599	0.98	2	0	60937196	G	A
rs13019590	0.96	2	0	60872285	A	C
rs13026755	0.91	2	0	60933484	C	T
rs13031237	0.99	2	0	60908994	G	T
rs13031721	0.97	2	0	60879336	A	G
rs138204386	0.91	2	0	60930668	TAAAC	T
rs140938600	0.97	2	0	60878920	TG	T
rs2074019	0.93	11	0	2297637	A	G
rs2074020	0.94	11	0	2297638	G	A
rs2074023	0.91	11	0	2304351	C	T
rs2476601	1.00	1	1	113834946	A	G
rs2521267	0.97	11	0	2298703	C	T
rs34518355	0.91	2	0	60926668	G	A
rs34695944	1.00	2	1	60897715	T	C
rs35878604	0.95	2	0	60849968	TC	T
rs55963299	0.95	2	0	60870448	A	G
rs56095903	0.92	2	0	60845529	G	T
rs62149416	0.94	2	0	60856371	T	C
rs62149417	0.94	2	0	60856428	G	A
rs6679677	0.93	1	0	113761186	C	A
rs67574266	0.98	2	0	60881694	G	A
rs734094	1.00	11	1	2301990	G	A
rs7588054	0.94	2	0	60856369	A	G,T