R/qtl2 Workshop

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Why R/qtl2?

- High-dimensional data
 genotypes and phenotypes
- More diverse crosses
 especially multi-parent populations
- Linear mixed models
 especially in DO/HS/AIL

$R/qtl \rightarrow R/qtl2$

- See kbroman.org/qt12/assets/vignettes/rqtl_diff.html
- New data file formats
- New data structures
- Split into multiple packages

```
qtl2geno, qtl2scan, qtl2plot, qtl2convert
```

New function names

```
	ext{read.cross()} 
ightarrow 	ext{read\_cross2()} \ 	ext{calc.genoprob()} 
ightarrow 	ext{calc\_genoprob()} \ 	ext{scanone()} 
ightarrow 	ext{scan1()} \ 	ext{}
```

- Different treatment of intermediate calculations
- Use of individual IDs for aligning data
- Order of args when subsetting cross objects

```
\mathtt{cross}[\mathtt{chr},\mathtt{ind}] \to \mathtt{cross2}[\mathtt{ind},\mathtt{chr}]
```