Conditional eQTL meta analysis

Introduction:

* Is it possible to analyze eQTL data without the SuSiE Method?
* Instead -> all-but-one conditional analysis on the SIGLEC14 gene
* We are the first to do this
  + Maybe works, maybe not
* We had 6 steps, which we will explain now

Step 6 Colocalization:

* Step done in R with package “coloc”
* Try to find out if SuSiE and ours are the same, therefore:

1. Transform data, so that R can read it
2. Colocalization with our data vs SuSiE
   1. PP.H4 value very close to 1 -> strong evidence of colocalization
3. Scatterplot SuSiE LBFs (Log Bayes Factor) vs. our LABFs (Log Approximate Bayes Factor)
   1. Looks nearly identical
4. Scatterplot Protein LBFs vs. our LABFs
   1. Looks nearly identical

Conclusion:

* Results from step 6 speak for their own
  + We can answer question “Is it possible to analyze eQTL data without the SuSiE Method?” with yes
* This method needs to be more tested, but looks promising
* Could be new standard in future when working with data, where SuSiE isn’t possible (e.g. meta-analysis)