

UKBRC:

# Investigating the genetic basis of micronutrient efficiency in *Brassica napus*

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# Overall Project Summary

- Utilising AT to investigate efficiency mechanisms:
  1. specific to **individual** micronutrients
  2. Relating to nutrients interacting **within** tissues
  3. Relating to nutrient interacting **between** tissues
- Identify candidates from AT based SNP/GEM/trait associations
- Test candidates with *Arabidopsis* T-DNA insertional mutants- ion imbalance = result

# METHODS:

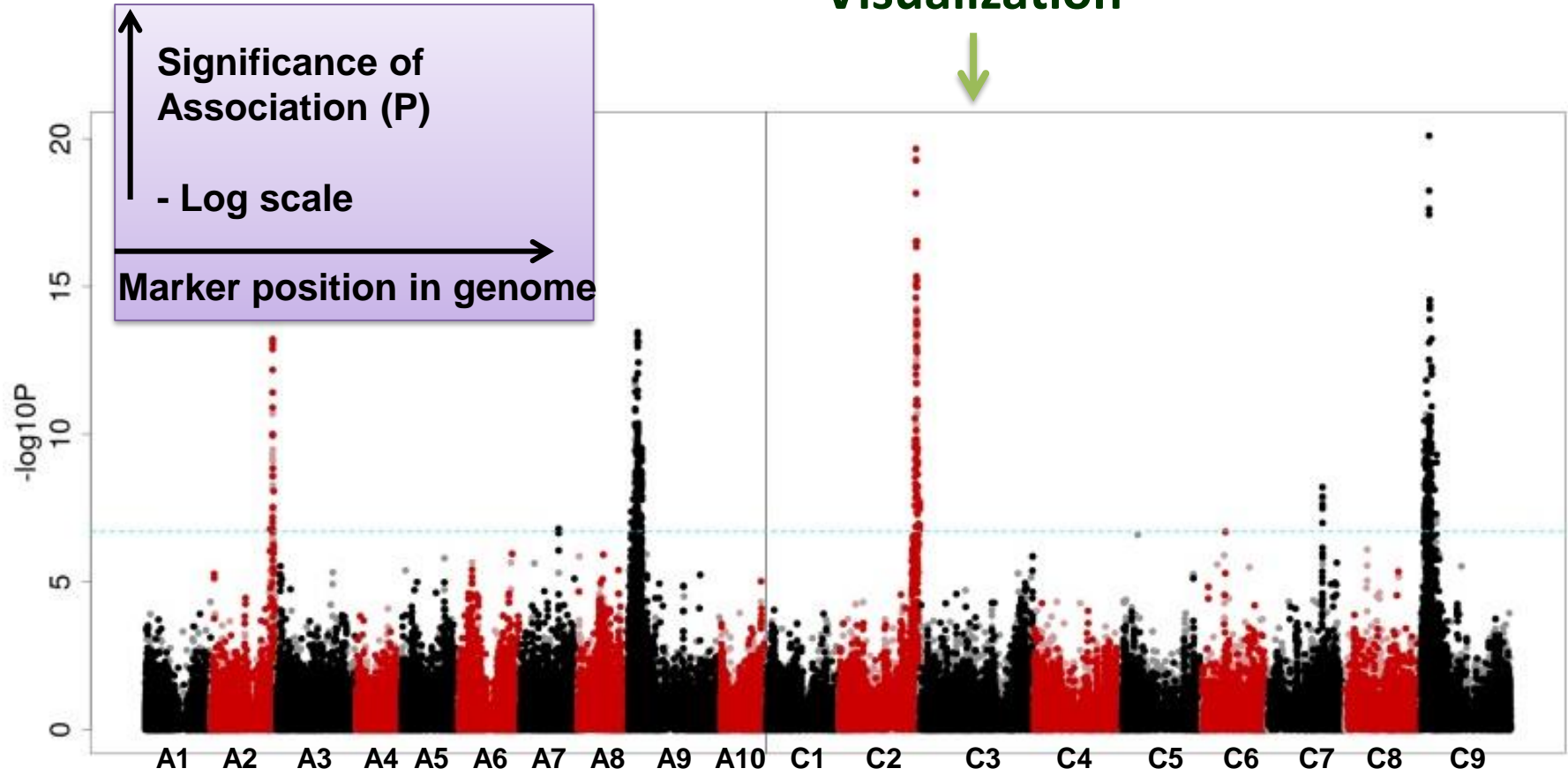
SNPs & GEMs

Ionic data (ICP-MS)



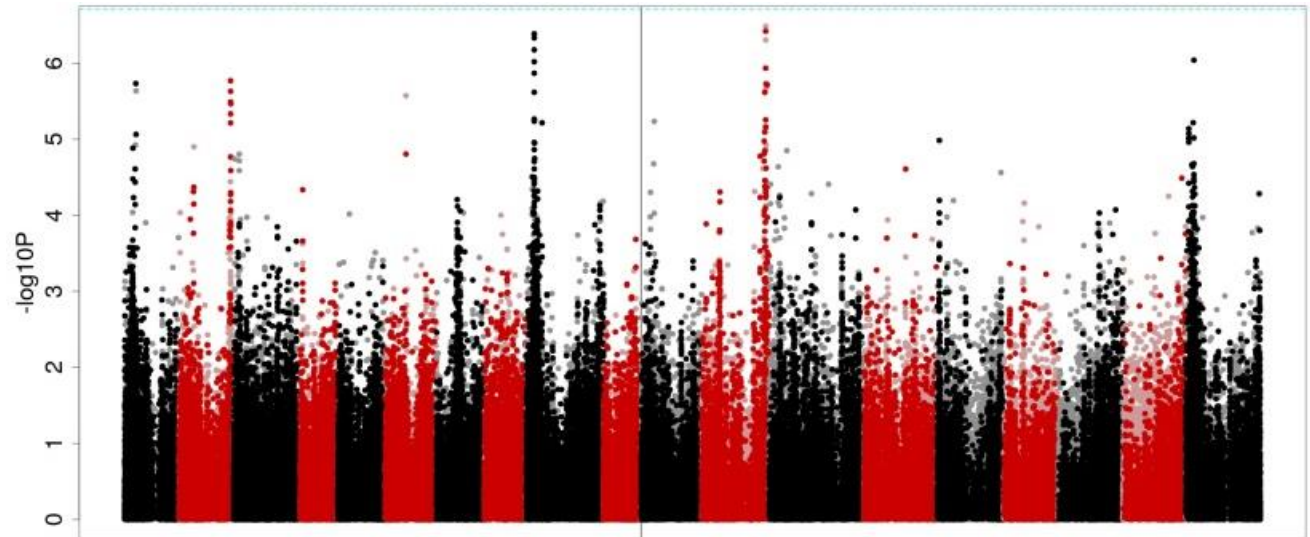
Marker-trait correlation

Visualization

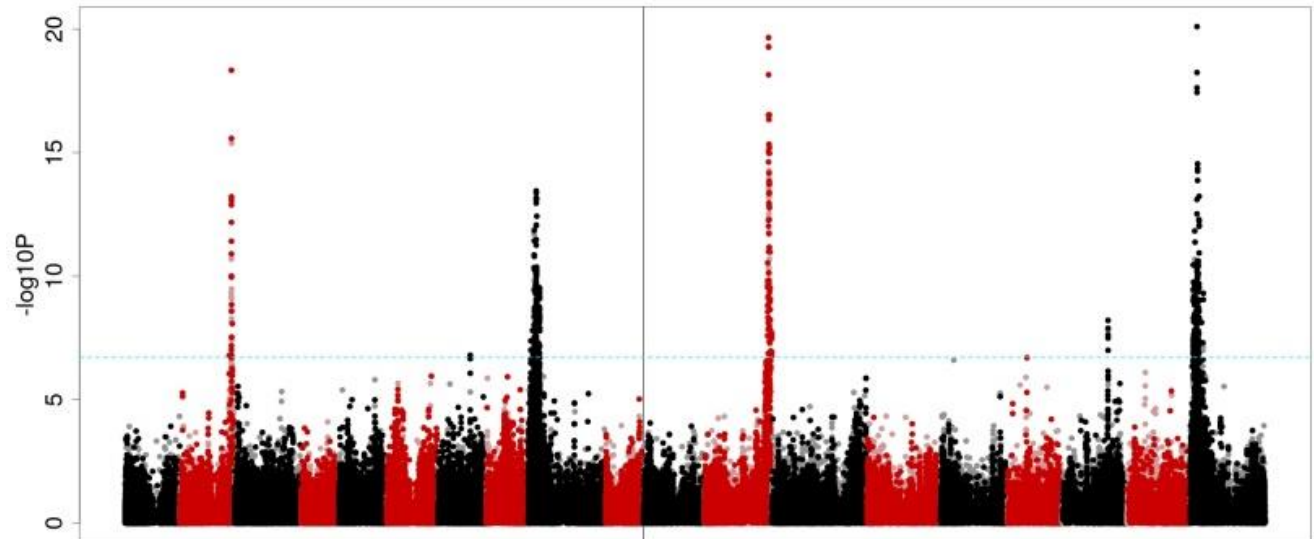


# E.g. S and Mo in seed

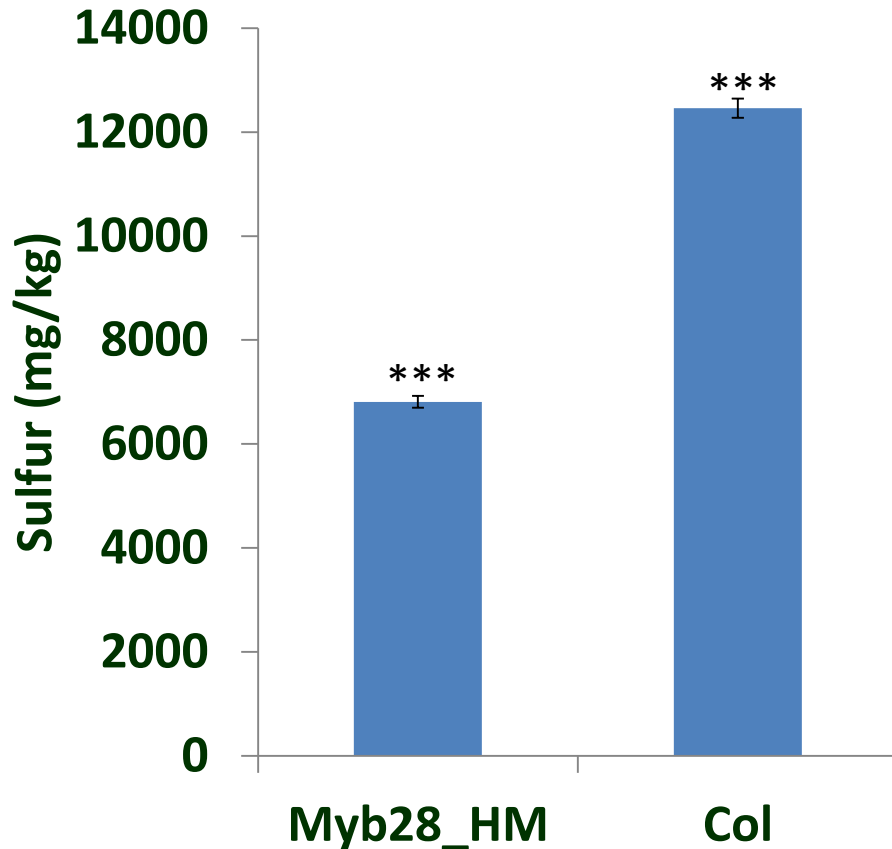
Molybdenum



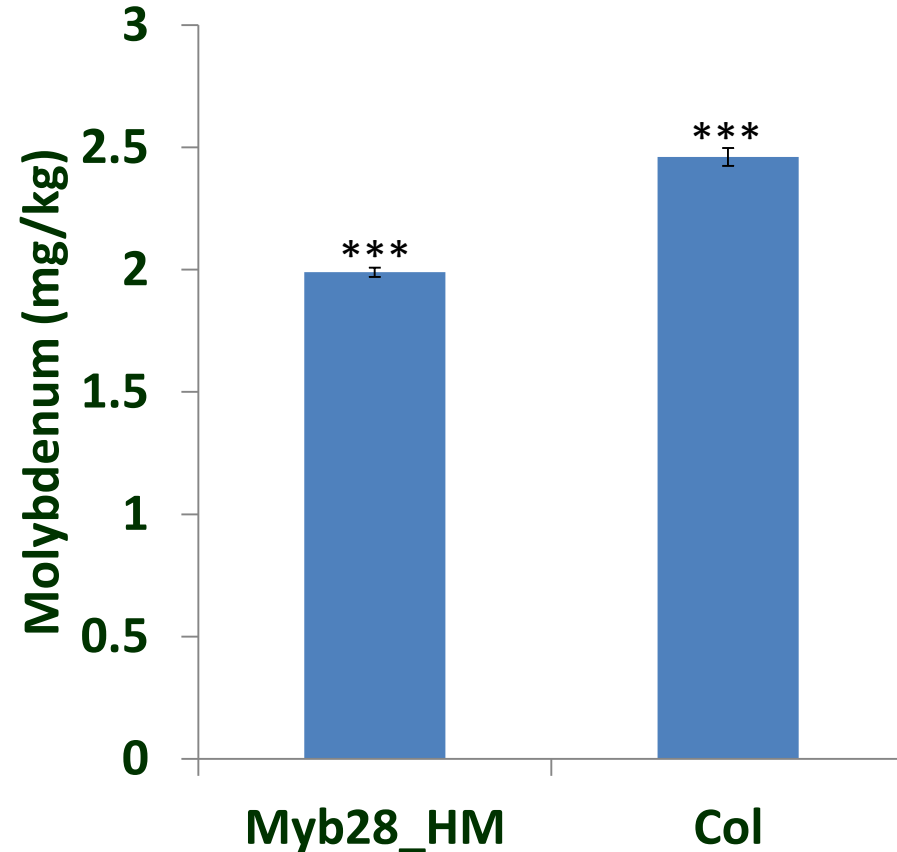
Sulfur



# Testing in Arabidopsis seeds



T-test:  $t:25.81$ ,  $df:10$ ,  $n:12$ ,  $p<0.001$



T-test:  $t:11.43$ ,  $df:10$ ,  $n:12$ ,  $p<0.001$

# Acknowledgements

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## Bancroft lab