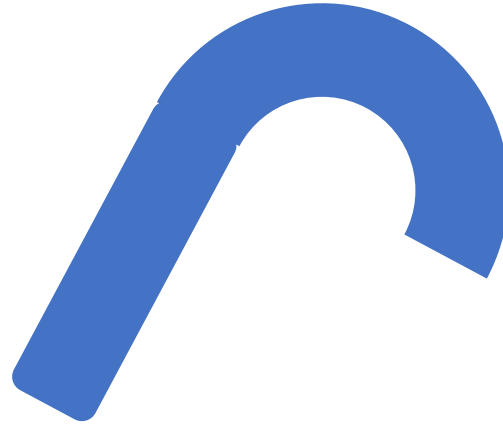


Validation of SNP from a Nordic WGS based GWAS using independent French population



Andrew Marete

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Nordic population

- ✓ QN: are Nordic WGS SNP significant in French population?
- ✓ 434 Milk production and fertility SNP selected from WGS GWAS in Nordic Holstein and Danish Jersey
- ✓ SNP added to EuroGenomics custom chip

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- ✓ Genotypes: combination of 50k SNP array and EuroGenomics chip
- ✓ Phenotypes: Milk yield, Protein and Fat yield, and their percentages, Fertility at insemination of heifers

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- ✓ QC: PLINK ; Imputation: FImpute ; GWAS: GCTA software
 - ✓ 368 Nordic WGS SNP were significant
 - ✓ Pleiotropy was observed across all traits
- ✓ 76 WGS SNP performed better than 50k SNP ($p < 1.35 \times 10^{-40}$)

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Implications

- ✓ Potential for across breed genomic prediction
- ✓ Use validated SNP to estimate epistasis variance

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