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Post-GWAS mapping of genomic regions in quiescent chromatin linked to average feed intake per visit in the Landrace breed

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INTRODUCTION & AIM

Feed efficiency is a key determinant of economic sustainability in pig production. **Feeding behavior traits**, such as average feed intake per visit (AFIV).

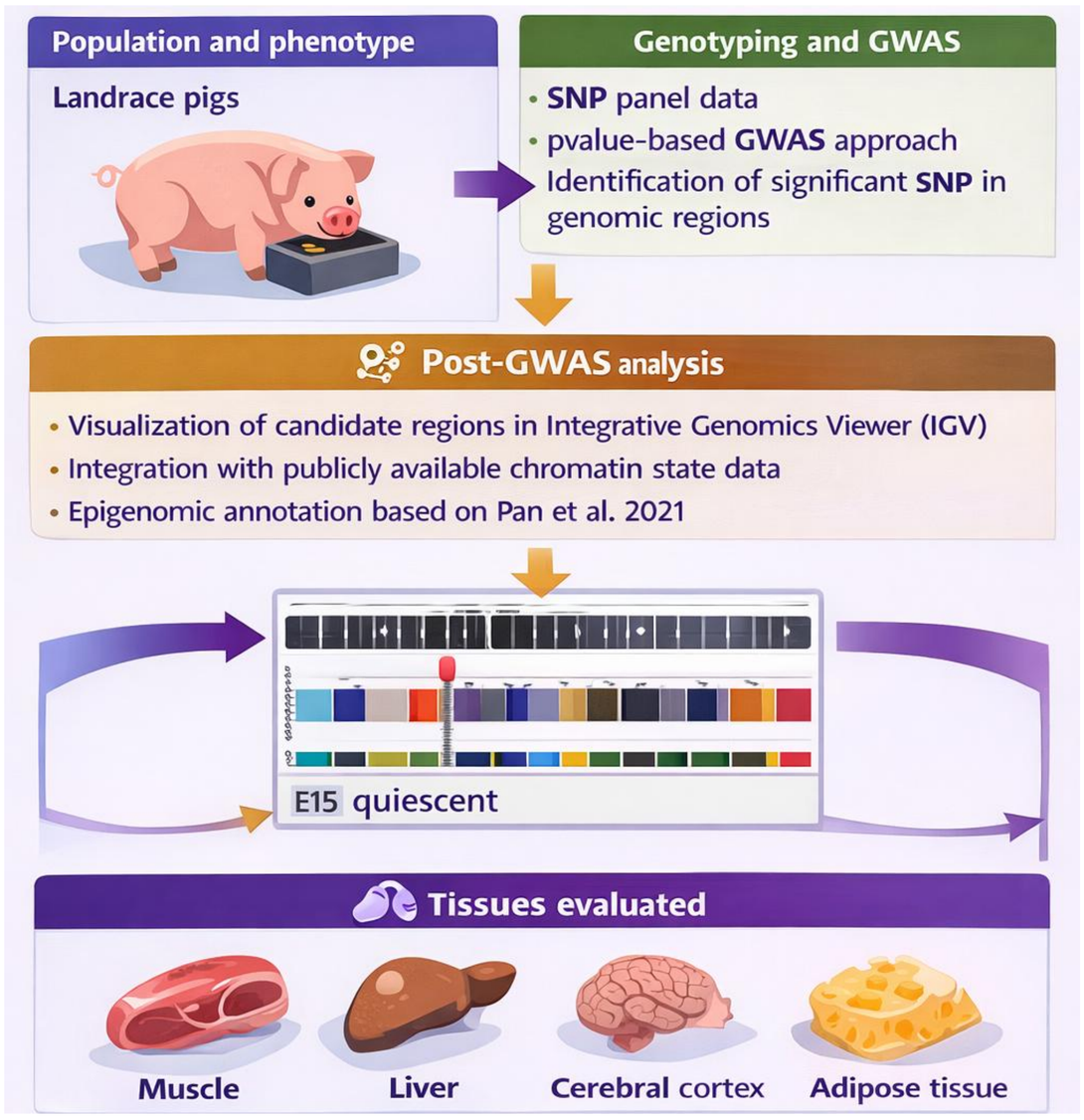
The **Landrace breed** is widely used in commercial breeding programs due to its productive potential.

Genome-wide association studies (GWAS) have identified genomic regions associated with complex traits.

OBJECTIVE

Identify & characterize genomic regions associated with AFIV in Landrace pigs using a post-GWAS integrative approach.

METHOD



RESULTS & DISCUSSION

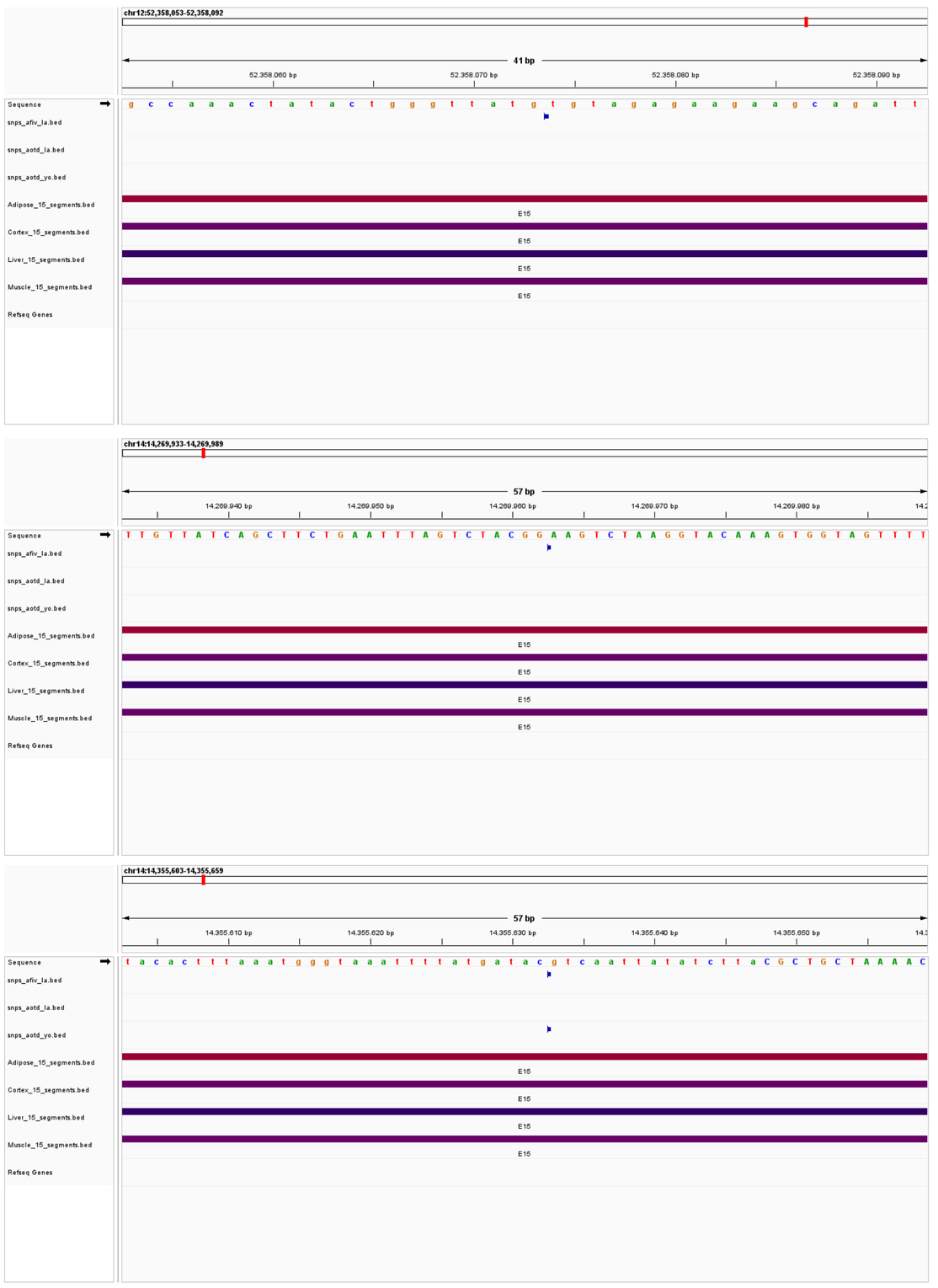


Figure 1. Visualization in Integrative Genomics Viewer showing the significant SNP associated with AFIV overlapping chromatin state E15 (quiescent) across muscle, liver, cerebral cortex, and adipose tissues.

AFIV-associated regions overlapping quiescent chromatin states highlight the complex and tissue-specific regulatory mechanisms underlying feeding behavior, emphasizing the importance of integrating epigenomic data to interpret GWAS signals.

CONCLUSION

The findings highlight the complexity of genetic and epigenetic regulation of feeding behavior in pigs and provide insights for genetic improvement strategies focused on feed efficiency in the Landrace breed

FUTURE WORK / REFERENCES

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