

Untitled 1

- **Allele-Specific Binding (ASB):** Identifies SNPs that lead to differential binding of transcription factors (TFs) to DNA.
- **ChIP-seq Analysis:** Uses chromatin immunoprecipitation sequencing (ChIP-seq) to map ASB events across the genome.
- **Regulatory Impact:** ASB SNPs influence chromatin accessibility, histone modifications, and gene expression.
- **Disease Associations:** Many ASB SNPs overlap with genetic variants linked to complex diseases.
- **Mechanistic Insights:** Highlights how non-coding genetic variations affect TF binding and transcriptional regulation.
- **Functional Implications:** Provides a deeper understanding of how regulatory variants contribute to phenotypic diversity and disease risk.