

Identifying Allele-Specific Expression (ASE) by bulk RNA sequencing

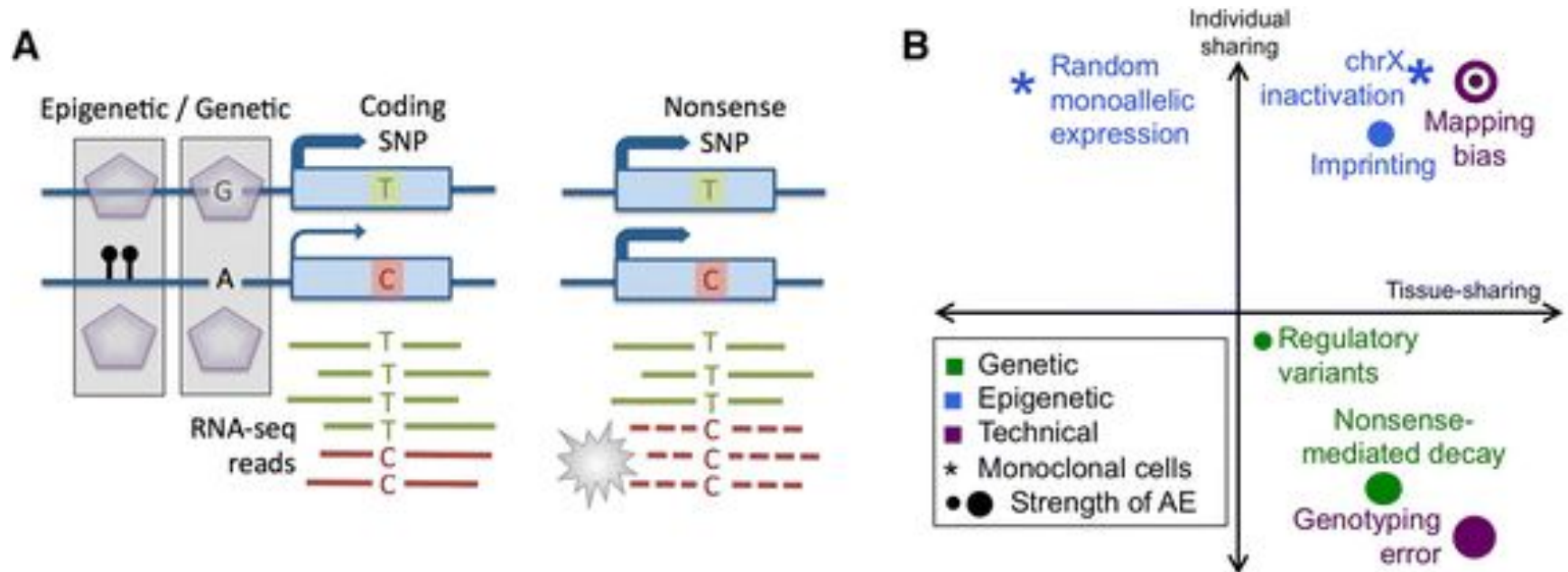
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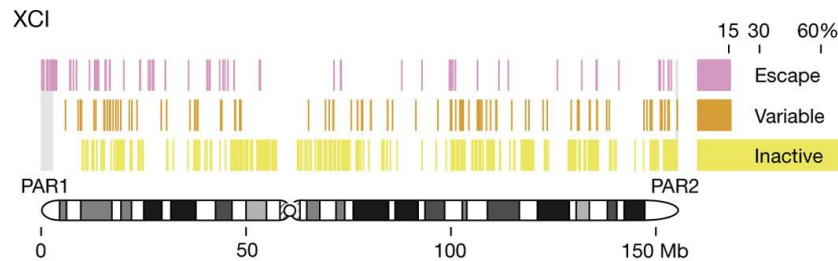
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Allele-Specific Expression (ASE)

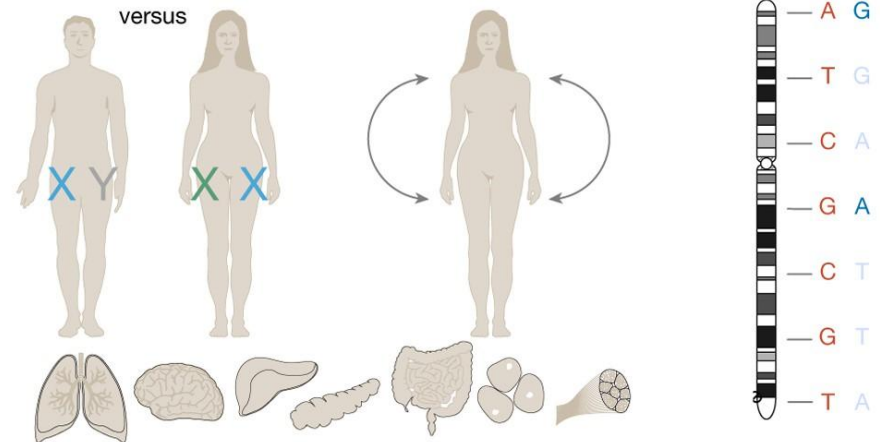
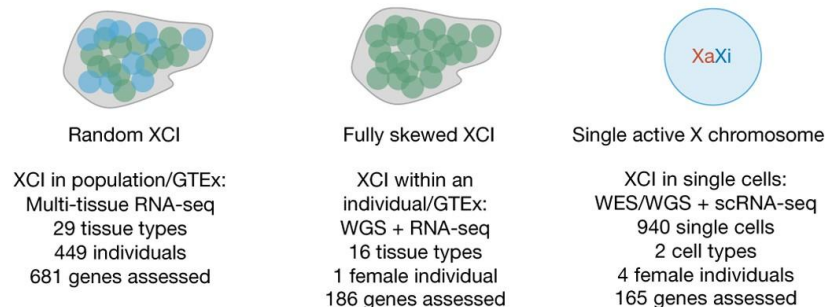


Allelic expression and its sources. **a** Schematic illustration of AE. **b** Biological sources of AE, with the x-axis denoting the approximate sharing of AE across tissues of an individual, and the y-axis having the estimated sharing of AE signal in one tissue across different individuals [5, 8, 12, 13, 15]. *SNP* single-nucleotide polymorphism

Landscape of X chromosome inactivation across human tissues



Study samples



Approach

Sex-biased expression in GTEx population samples

Allelic expression within a GTEx individual with highly skewed XCI

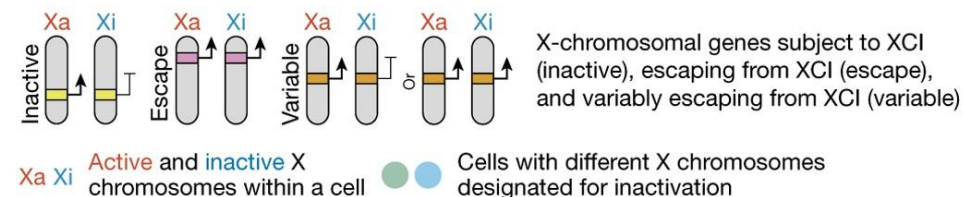
Allelic expression in chrX utilizing phasing

Genic XCI status

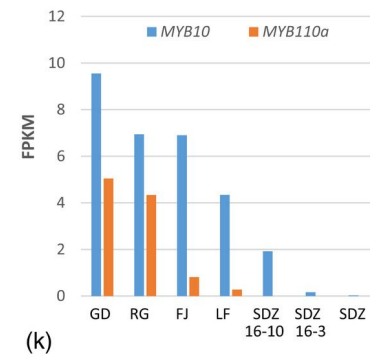
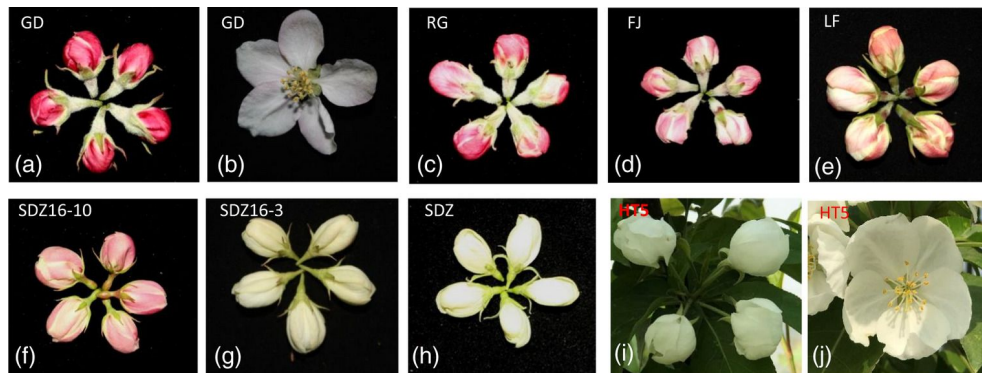
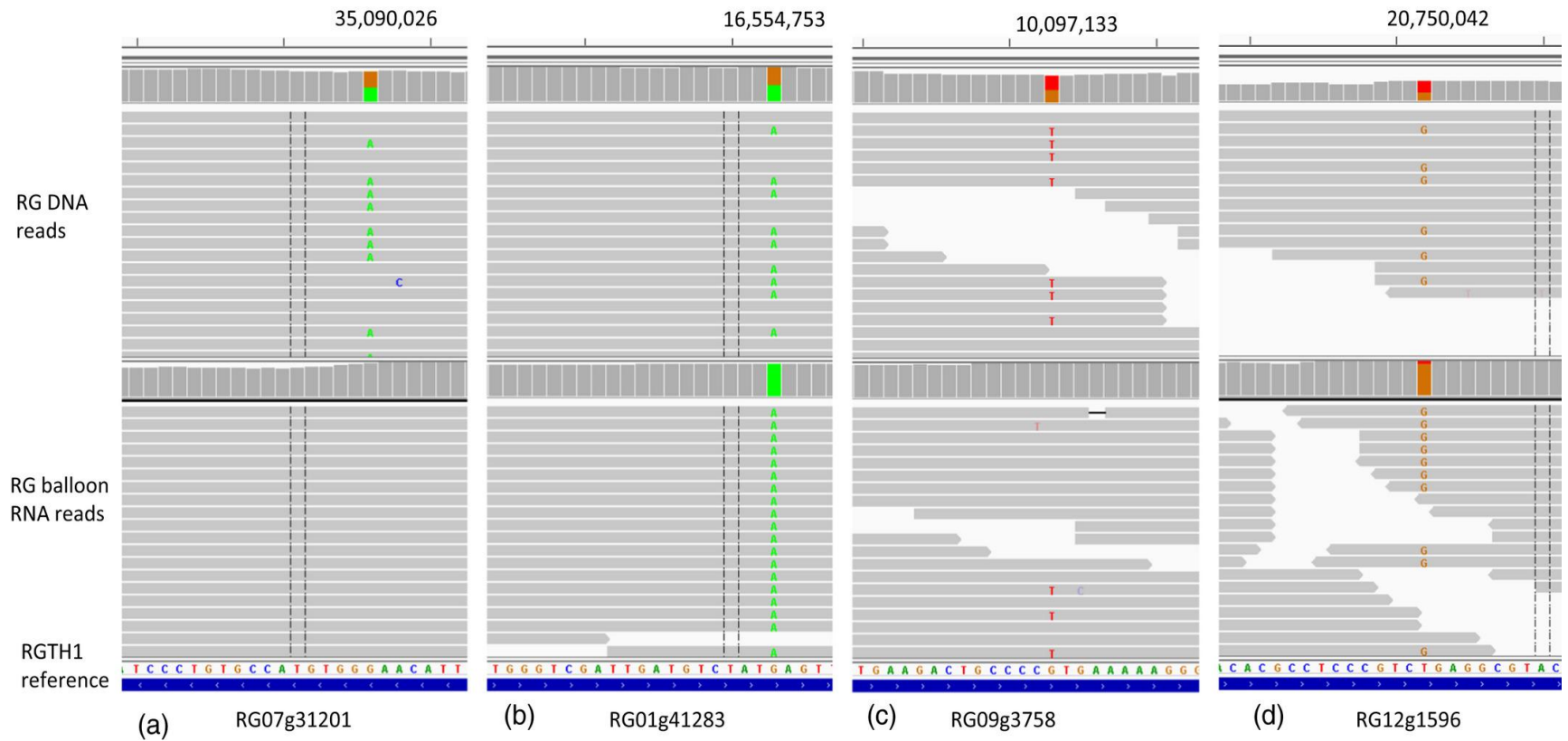
Tissue heterogeneity

Cellular heterogeneity

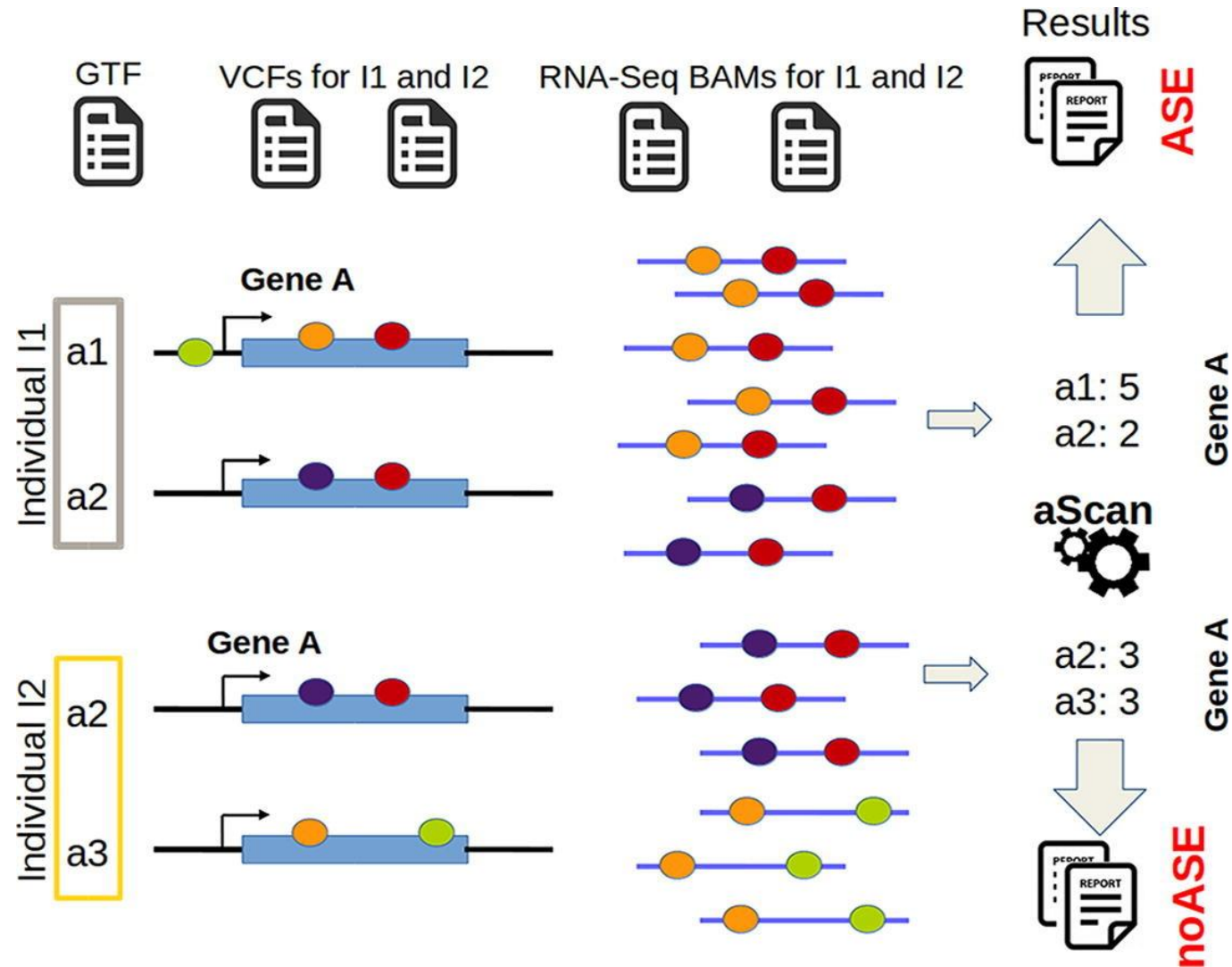
Impacts of incomplete XCI



Transposon insertions regulate genome-wide allele-specific expression and underpin flower colour variations in apple (*Malus spp.*)



aScan: A Novel Method for the Study of Allele Specific Expression in Single Individuals



ASEP: Gene-based detection of allele-specific expression across individuals in a population by RNA sequencing

