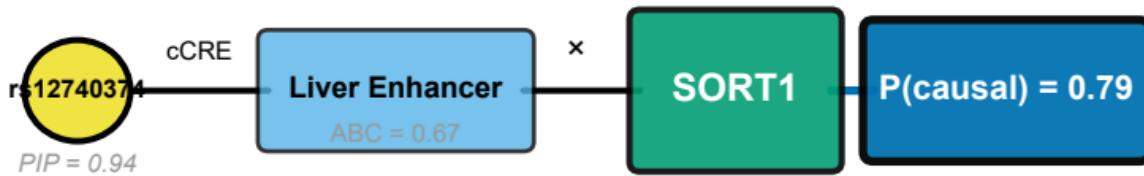


Mechanism Graph Framework



Calibrated: E = 0.012

Interpretable: Path visible

Uncertainty: CI quantified

Tissue-specific: Precise pathways

Path: $P_{path} = P_{IP} \times P(cCRE) \times P(E \rightarrow G|ABC)$
Gene: $P(G) = 1 - \prod_i (1 - P_{path_i})$ (Noisy-OR)

vs. Traditional (L2G):

Single opaque score
No calibration (ECE=0.18)
No mechanism insight

Five-Stage Pipeline

