

**Target sequencing of 13 candidate genes in AIDHS/SDS Sikhs population  
(572 cases; 368 controls) using custom Nimblegen probes**

**Samples and variants QC**

**820 samples passed stringent QC with 4111 high-quality variants**

**Gene-centric association analysis using statistical methods CMC and SKAT-O**

**Associated gene -> follow up for rare  
damaging functional variants**

**Taqman assay/sequencing for AIDHS/SDS Sikhs family and  
replication set (n=1769) for associated gene**

**Functional validation – transgenic zebrafish (*Danio rerio*)**