

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: List of 179880 significant hESC-CM promoter-genome interactions with average read counts from three biological replicates.

File Name: Supplementary Data 2

Description: List of cardiac VISTA enhancers (with their bracketing genes) that intersect with cPIRs (with their target genes).

File Name: Supplementary Data 3

Description: List of connected subnetworks constructed from top 20% of hESCCM promoter interactions for read counts.

File Name: Supplementary Data 4

Description: List of significant ( $p < 1 \times 10^{-5}$ ) SNPs from the GWAS of cardiac conduction and rhythm disorders located within cPIRs and the genes they interact with.