

## Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Listing  $p$ -values for all experimental comparisons performed.

File Name: Supplementary Movie 1

Description: Movie of reconstructed  $\mu$ CT image stacks through a normal E14.5 mouse heart.

File Name: Supplementary Movie 2

Description: Movie of reconstructed  $\mu$ CT image stacks through a E14.5 mouse heart displaying a perimembranous ventricular septal defect.

File Name: Supplementary Movie 3

Description: Movie of reconstructed  $\mu$ CT image stacks through a E14.5 mouse heart displaying a muscular ventricular septal defect.