

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Movie corresponds to Figure 1c. 3D confocal projection (1200 μm z-stack) of the dorsal side of a whole iDISCO-cleared heart with PGP9.5 staining (gray).

File Name: Supplementary Movie 2

Description: Movie corresponds to Figure 1. 3D projection (5590 μm z-stack) of a whole iDISCO-cleared heart with PGP9.5 staining (green). The heart was imaged with a lightsheet microscope.

File Name: Supplementary Movie 3

Description: Movie corresponds to Figure 1c. Confocal z-stack (785 μm zstack) through the left ventricle of a whole iDISCO-cleared heart with PGP9.5 staining (gray). A dense network of nerve fibers is observed from the epi- to endocardium.

File Name: Supplementary Movie 4

Description: Movie corresponds to Supplementary Figure 2b. 3D confocal projection (402 μm z-stack) of the left atrium of a PACT-cleared heart in which cholinergic nerve fibers (gray) were virally labelled.

File Name: Supplementary Movie 5

Description: Movie corresponds to Supplementary Figure 2c. 3D confocal projection (1000 μm z-stack) of the dorsal atrial wall of a PACT-cleared heart in which noradrenergic neurons (gray) in cardiac ganglia were endogenously labelled.

File Name: Supplementary Movie 6

Description: Movie corresponds to Supplementary Figure 2c. 3D confocal projection (85 μm z-stack) of the ventricle of a PACT-cleared heart in which noradrenergic nerve fibers (gray) were endogenously labelled.

File Name: Supplementary Movie 7

Description: Movie corresponds to Figure 5c. 3D confocal projection (173 μm z-stack) of cardiac-projecting neurons in the LSG labeled with CTB-488.