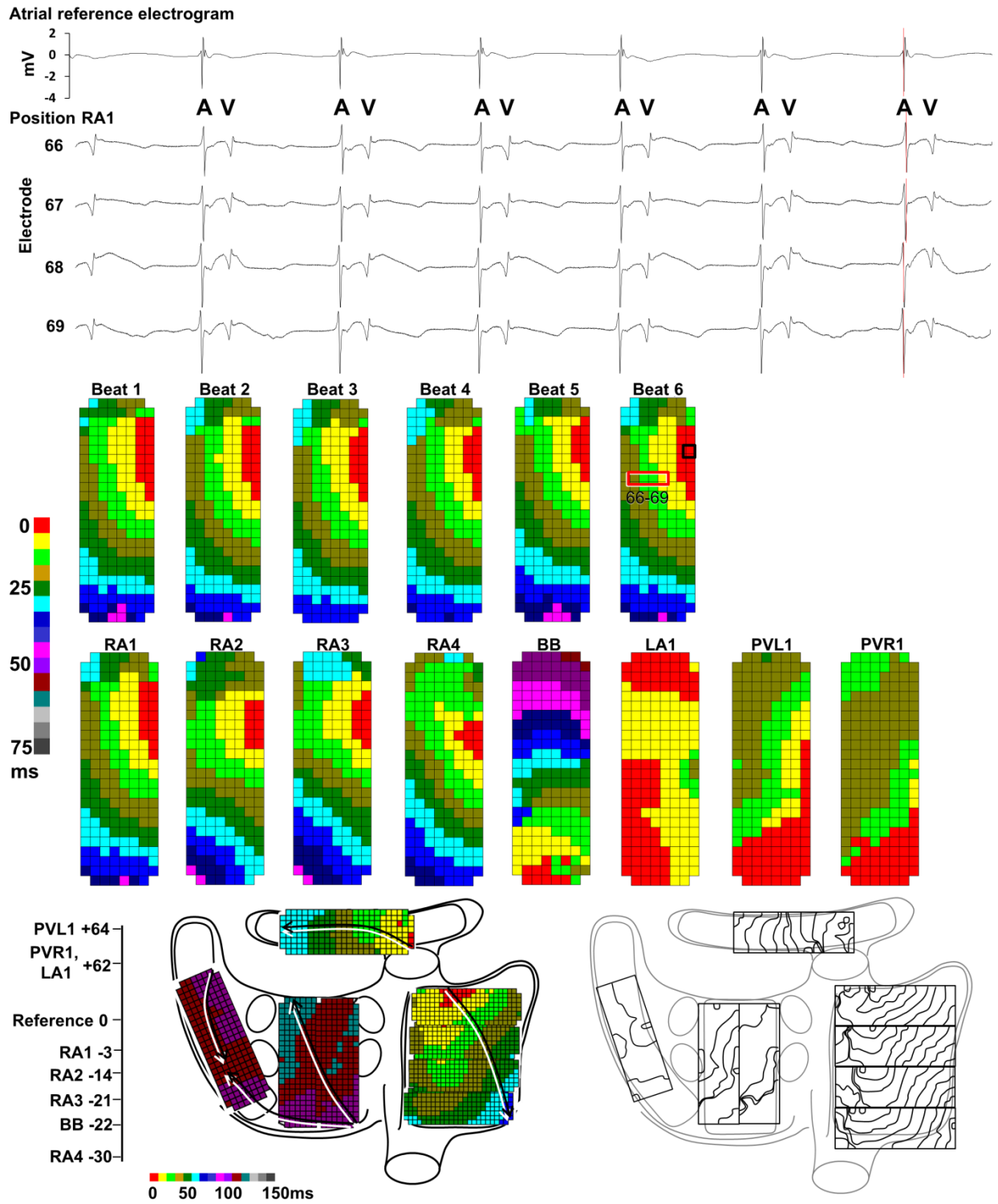


# **SUPPLEMENTAL MATERIAL**

**Figure S1. Construction of total SR map.**



In the upper panel, the reference electrogram as well as the electrograms recorded at mapping position RA1 at electrode 66, 67, 68, and 69 are shown. In each electrogram, an atrial potential (A) and a farfield ventricular potential (V) can be distinguished. At position RA1, 6 successive SR beats were recorded. Activation maps were constructed by marking the steepest negative slope of the unipolar electrograms. In the last beat (no. 6), the steepest negative slope of all unipolar electrograms is annotated by a red line. Activation maps of all beats recorded at RA1 are displayed. In beat number 6, electrodes 66-69 are marked by a red square. For each activation map, the earliest activated electrode, as annotated in the electrograms, is marked as  $t=0$ . In the example of beat 6, the electrode marked by the black square is the earliest activated electrode, local activation times of electrodes 66, 67, 68 and 69 are respectively 15, 13, 11 and 8ms after the earliest activated electrode.

Similar to the construction of each activation map, the reference electrogram allows time alignment of the various recorded mapping positions, by correcting for the time intervals between activation maps. In this way, the total activation map, a view in which maps are thus time aligned, can be displayed. For further clarification of details of patterns of activation the corresponding isochronal maps are displayed next to the total SR map, in which isochrones are drawn at every 5ms.

A: atrial; BB: Bachmann's bundle; LA: left atrium; RA: right atrium; PVL: pulmonary veins left; PVR: pulmonary veins right; V: ventricular