Supplementary Material

**Supplementary Table S1.** Changes of main action potential parameters in the condition of *I*f block from 0% to 100% in the rabbit-like and human-like SAN models.

|  |  |  |
| --- | --- | --- |
|  | Rabbit-like SAN model(Severi *et al*. model) | Human-like SAN model(Severi *et al*. model (with human *I*f)) |
| *I*f block(%) | CL (ms) | PR reduction（%） | MDP(mV) | APD90 (mV) | AP upstroke start voltage(mV) | CL (ms) | PR Reduction（%） | MDP(mV) | APD90 (mV) | AP upstroke start voltage(mV) |
| 0 | 354.8 | 0 | -58 | 109.7 | -22.6 | 1139.4 | 0 | -60.3 | 127.8 | -22.2 |
| 10 | 362.3 | -2.1  | -58.1 | 109.9 | -22.6 | 1208.6 | -5.8  | -60.5 | 128.3 | -22.2 |
| 20 | 371.1 | -4.4  | -58.2 | 110.1 | -22.6 | 1280.7 | -11.1  | -60.6 | 128.9 | -22.2 |
| 30 | 381.5 | -7.0  | -58.3 | 110.3 | -22.6 | 1354.7 | -16.0  | -60.8 | 129.6 | -22.2 |
| 40 | 394.1 | -10.0  | -58.5 | 110.5 | -22.6 | 1429.6 | -20.4  | -60.9 | 130.4 | -22.2 |
| 50 | 410.0 | -13.5  | -58.6 | 110.6 | -22.6 | 1504.1 | -24.3  | -61.1 | 131.3 | -22.1 |
| 60 | 431.3 | -17.7  | -58.8 | 110.7 | -22.6 | 1575.0  | -27.7  | -61.4 | 132.4 | -22.1 |
| 70 | 462.7 | -23.3  | -59.1 | 110.7 | -22.6 | 1624.4 | -29.9  | -61.7 | 133.8 | -22.1 |
| 80 | 518.4 | -31.6  | -59.7 | 111.5 | -22.5 | 1713.5 | -33.6  | -62.1 | 134.9 | -22.1 |
| 90 | 687.4 | -48.4  | -60.9 | 109.6 | -22.5 | 1724.3 | -34.0  | -62.6 | 136.9 | -22.1 |
| 100 | - | - |  | - | - | 1769.3 | -35.7  | -63.6 | 138.5 | -22.0 |