

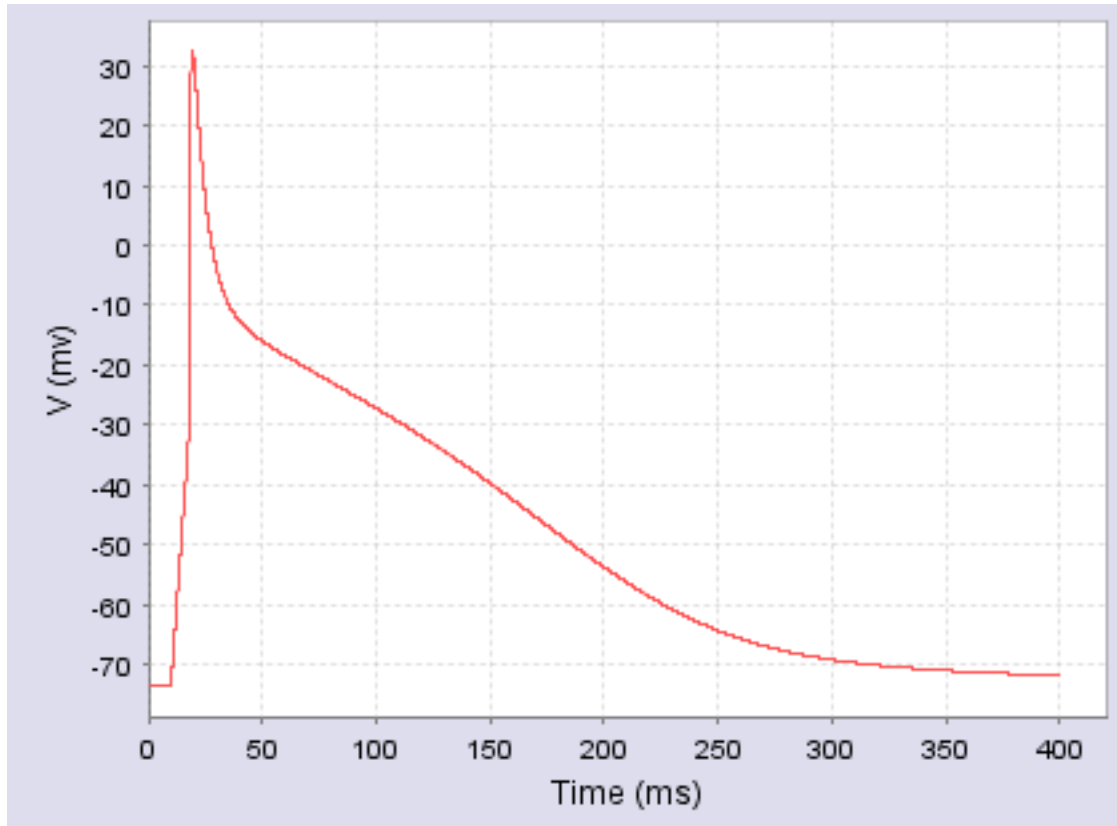
# Human Atrial CRN98-ESM

**Enhanced Simucore Model Based Upon: Nygren, Fiset, Firek, Clark, Lindblad, Clark and Giles, 1998 Model of Human Atrial Cardiac Action Potentials, 1998; v. 2.0**

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## 1 Description



This model simulates human atrial action potentials.

Abstract excerpt: *"We have developed a mathematical model of the human atria myocyte based on averaged voltage-clamp data recorded from isolated single myocytes. Our model consists of a Hodgkin-Huxley-type equivalent circuit for the sarcolemma, coupled with a fluid compartment model, which accounts for changes in ionic concentrations in the cytoplasm as well as in the sarcoplasmic reticulum. This formulation can reconstruct action potential data that are representative of recordings from a majority of human atrial cells in our laboratory and therefore provides a biophysically based account of the underlying ionic currents."*

## 2 References

- Nygren A, Fiset C, Firek L, Clark JW, Lindblad DS, Clark RB, Giles WR. Mathematical model of an adult human atrial cell: the role of K<sup>+</sup> currents in repolarization. *Circ Res.* 1998 Jan 9-23;82(1):63-81.

PMID: [9440706](#)

### 3 Ordering

- [Order this model](#) or [request further information](#).