

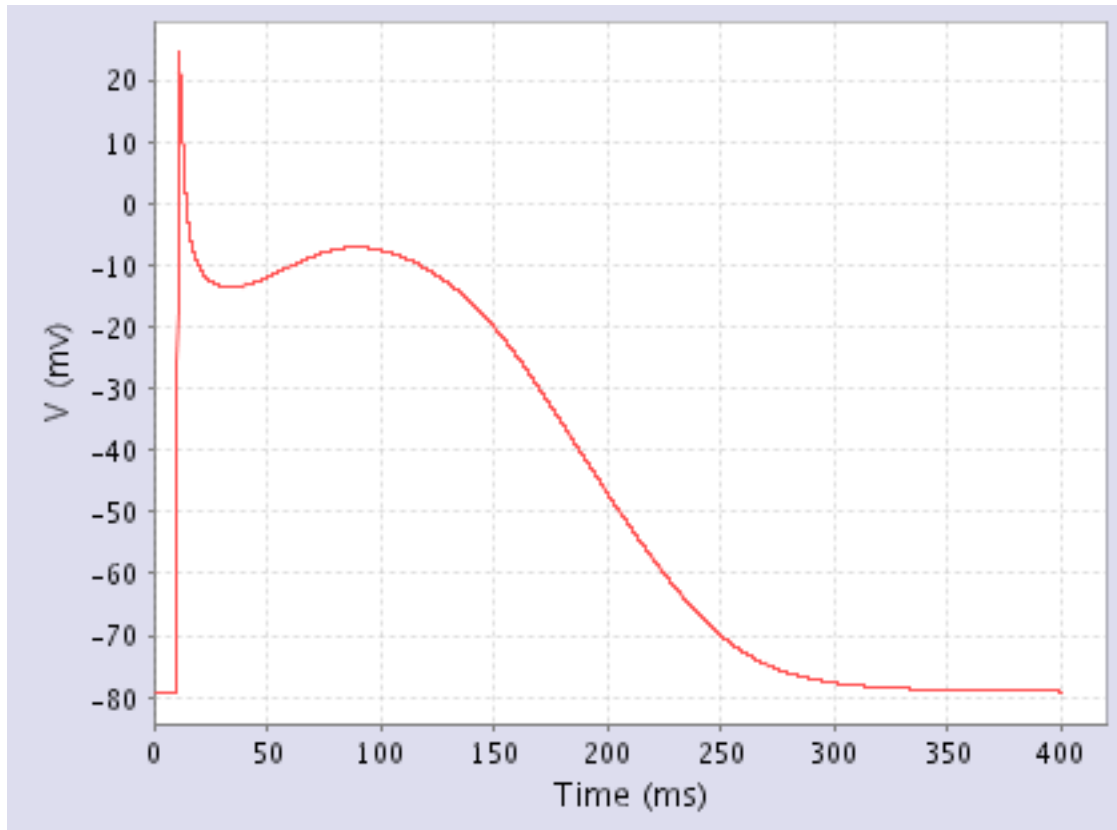
Courtemanche, Ramirez, Nattel Model of Human Atrial Cardiac Action Potentials, 1998

v. 1.4

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1. Description



Example action potential (BCL = 400 ms).

This model simulates human atrial action potentials. The model formulation is based on Luo-Rudy II guinea-pig ventricular model with currents modified to mimic the configuration of human atrial action potential.

Abstract excerpt: *"Using specific formulations of the K^+ , Na^+ , and Ca^{2+} currents based on data recorded from human atrial myocytes, along with representations of pump, exchange, and background currents, we developed a mathematical model of the AP. The model AP resembles APs recorded from human atrial samples and responds to rate changes, L-type Ca^{2+} current blockade, Na^+/Ca^{2+} exchanger inhibition, and variations in transient outward current amplitude in a fashion similar to experimental recordings."*

2. References

- Courtemanche M, Ramirez RJ, Nattel S.
Ionic mechanisms underlying human atrial action potential properties: insights from a mathematical model.
Am J Physiol. 1998 Jul;275(1 Pt 2):H301-21.
PMID: [9688927](#)

3. Ordering

- [Order](#) this model via a secure site.