

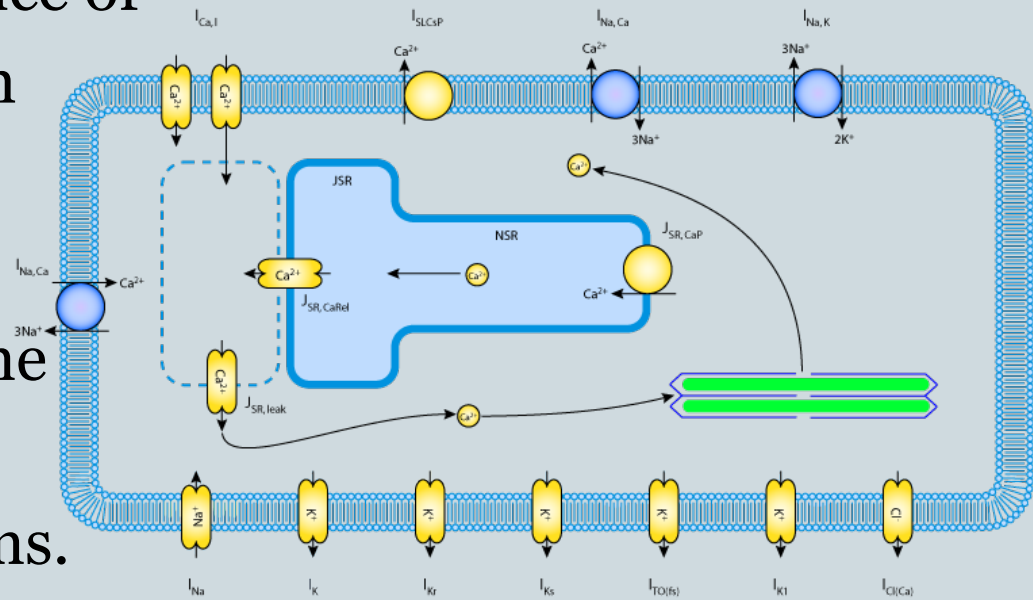
Channel Sensitivity Analysis in a Ventricular Myocyte Model



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Project Proposal

- Utilizing Shannon-Bers' ventricular myocyte model, through Matlab and Nimrod, this project aims to analyze the various parameters that are associated with each ionic channel in the cell. This analysis will be used to determine the effect and importance of each parameter on each channel. This analysis can eventually be used to aid in determining the best targets for pharmacological systems.



Progress



- Configured MatLab code to run in Nimrod
 - Created skeleton file and uploaded onto Nimrod portal
- Set up a default experiment to run, but encountered some unexpected problems
 - All parameters entered into Nimrod, plan file adjusted, but error seems to occur when trying to execute the MatLab command; no output, but still creates a directory
- Continued making a list of parameter initial values
- Compared code/Nimrod experiment with previous model

Tentative Plans



- Fix plan file/parameter settings to get experiment to run properly through Nimrod
- Begin initial testing of first cardiac channel, by adjusting parameters by 10%
- Continue to learn how to run Nimrod/G and eventually use Nimrod/E

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PACIFIC RIM UNDERGRADUATE EXPERIENCES



Late night trips to the city...

