

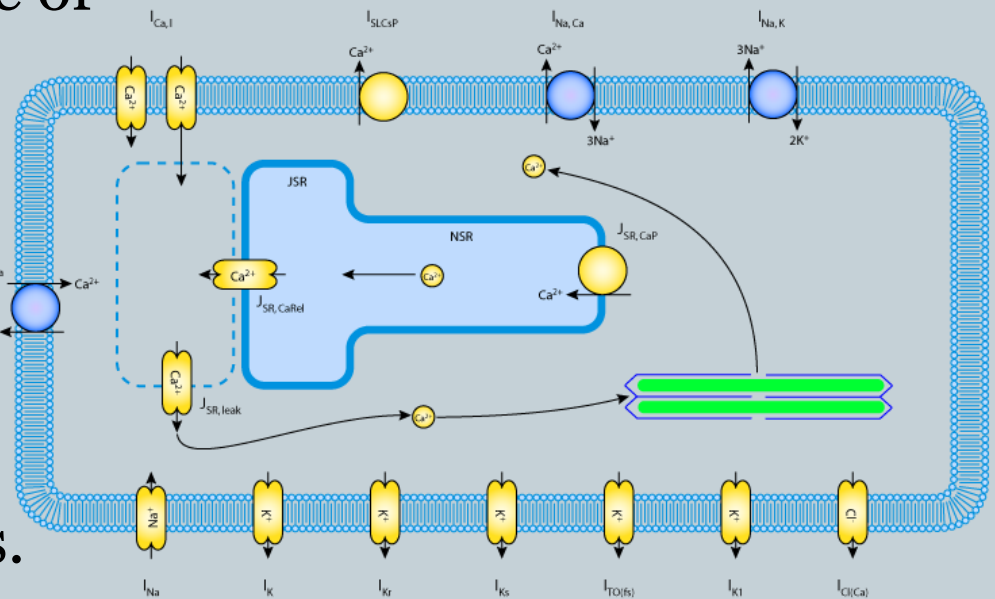
Channel Sensitivity Analysis in a Ventricular Myocyte Model



BRIAN BECERRA
MONASH UNIVERSITY
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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



- Finished the parameter sweeps for most of the channels, only have a couple more left
- With the help of Blair, was able to collate the outputs into a single file
- Began addressing Nimrod/E issue
 - Will meet up with Neil this week, to figure out the experimental design
 - May have to use an older version of Nimrod/E that works, since current version doesn't

Tentative Plans



- Finish remaining parameter sweeps
- Meet up with Neil and discuss my project, in order to determine a proper experimental design
- Hopefully will be able to start working with Nimrod/E, if we are able to work the issues out that have been plaguing it in the past
 - Either with the help of Neil, or by using the last working version

My Project's Journey



Successes!

- Initial experimental design in Nimrod
 - Default design able to be used for most of the channels, solely by changing parameters
- Parameter sweeps have been yielding good results

Roadblocks

- Initial startup on Nimrod portal
 - With the help of Blair, able to alleviate the problems
- Nimrod/E
 - Without a working version, post processing will be stalled, but currently trying to figure out a solution



Teddy's Lookout



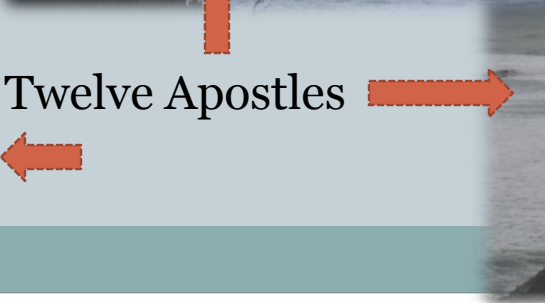
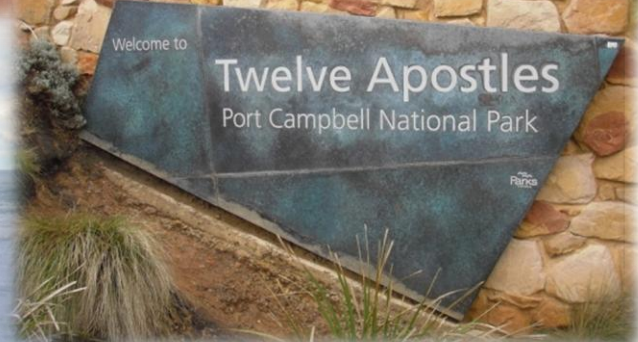
Crimson Rosella



King Parrot



Just a Koala, chillin'



Twelve Apostles

Acknowledgements



- **Monash University**
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