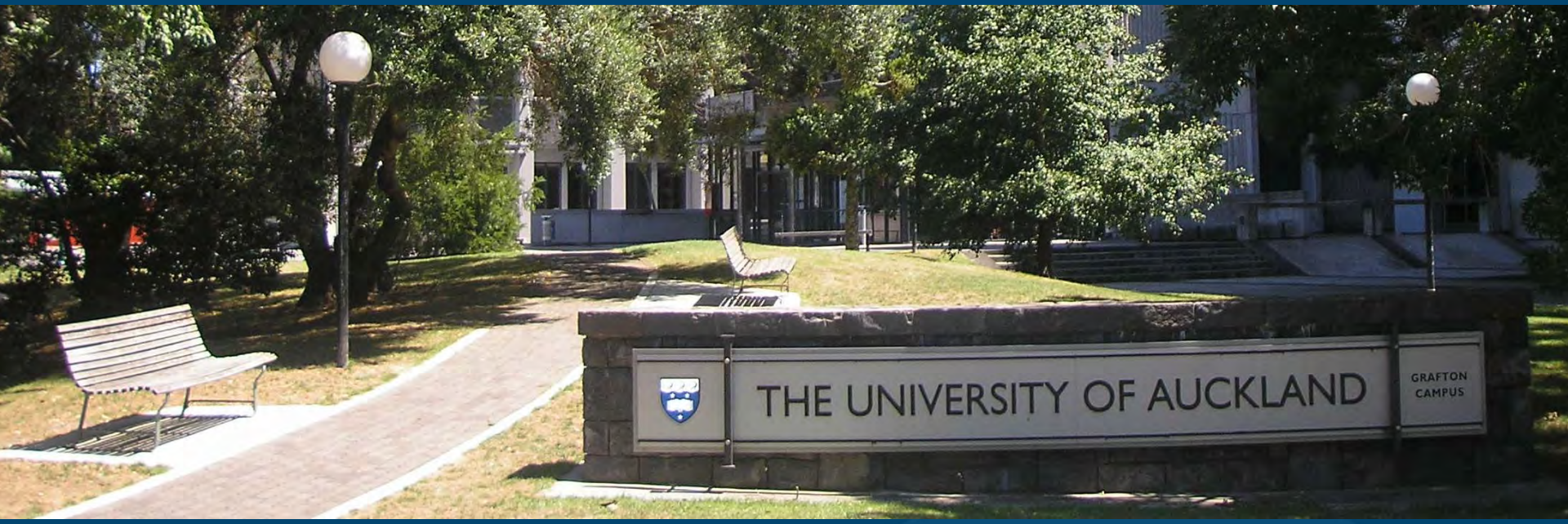


Immunostaining and Super-Resolution Imaging of Structures In Cardiac Myocytes

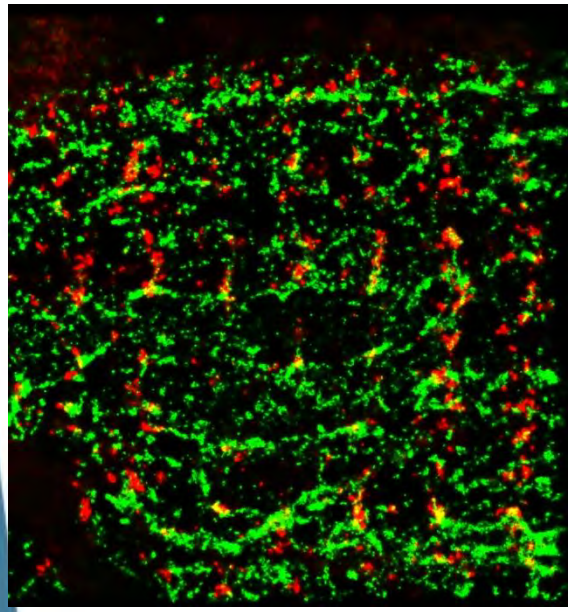
Shirley Zhang
Auckland, New Zealand
August 17, 2012

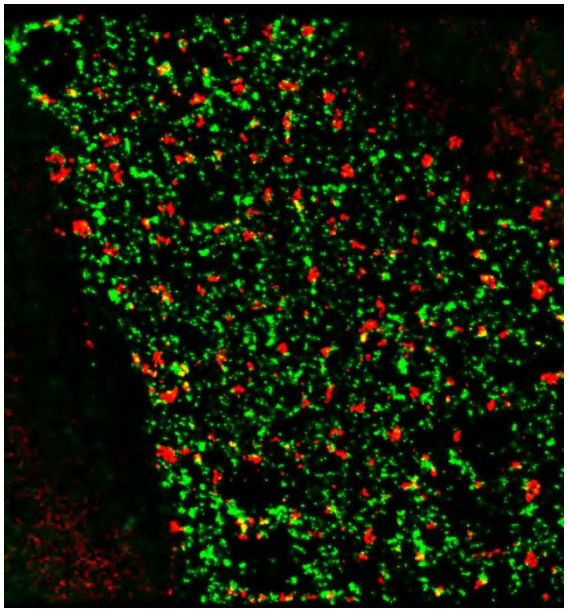
Proposed Research

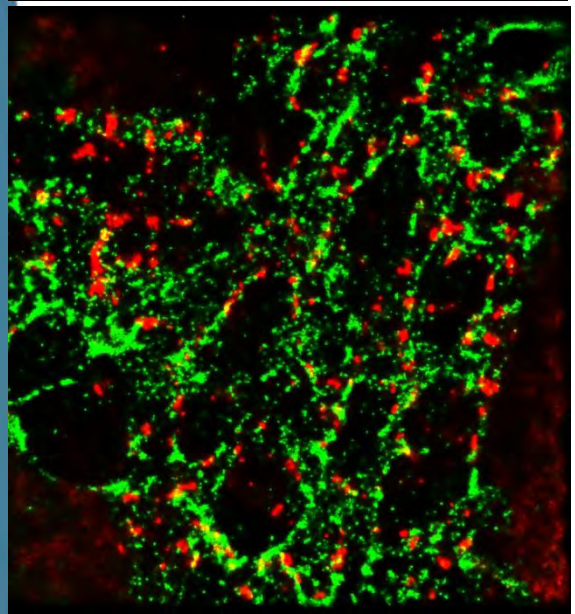
- Super-resolution fluorescent imaging of ryanodine receptors (RyR) and microtubule structures in mouse cardiac myocytes with altered expression of protein junctophilin-II

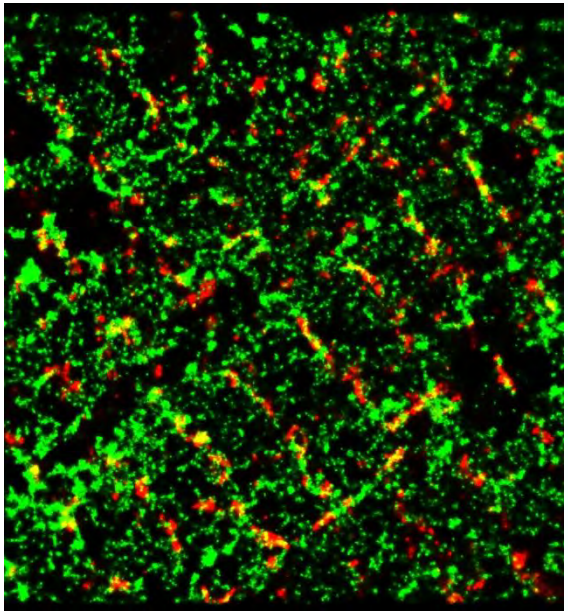
- Compare relative positions of labeled structures to wild type samples

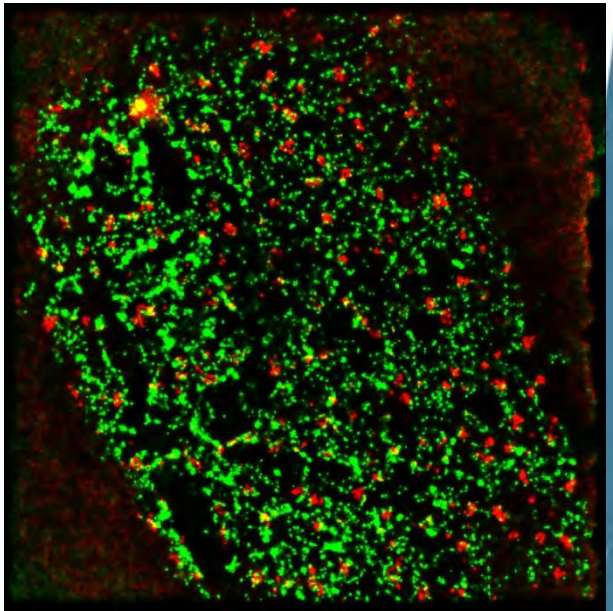
Progress this Week



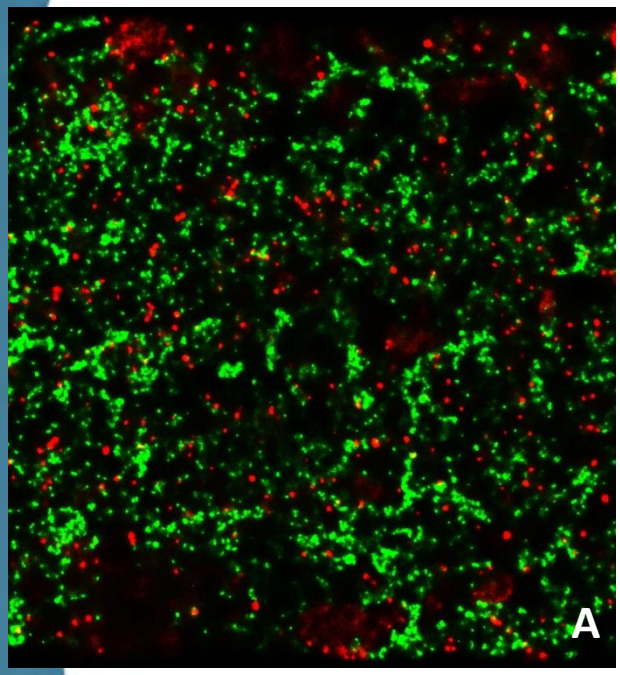




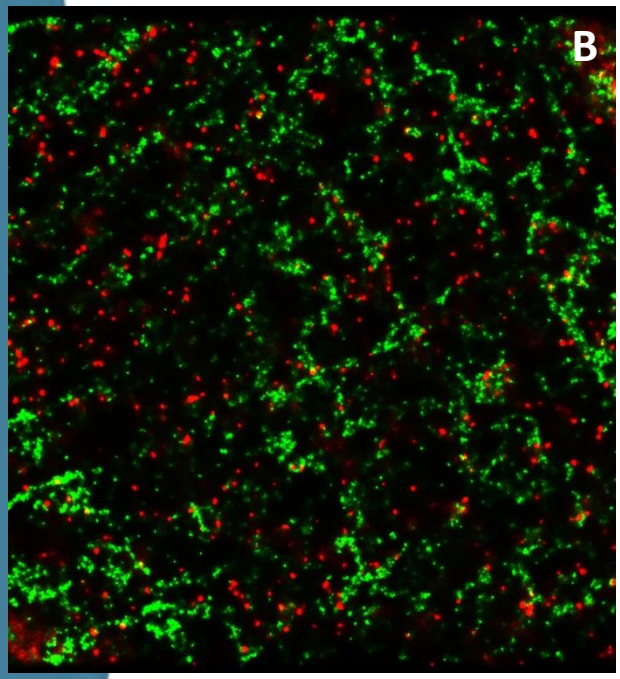


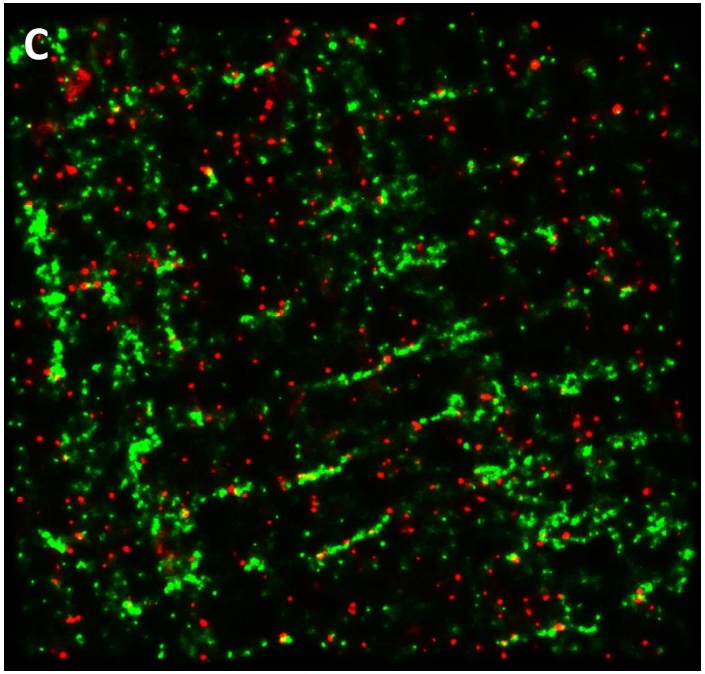


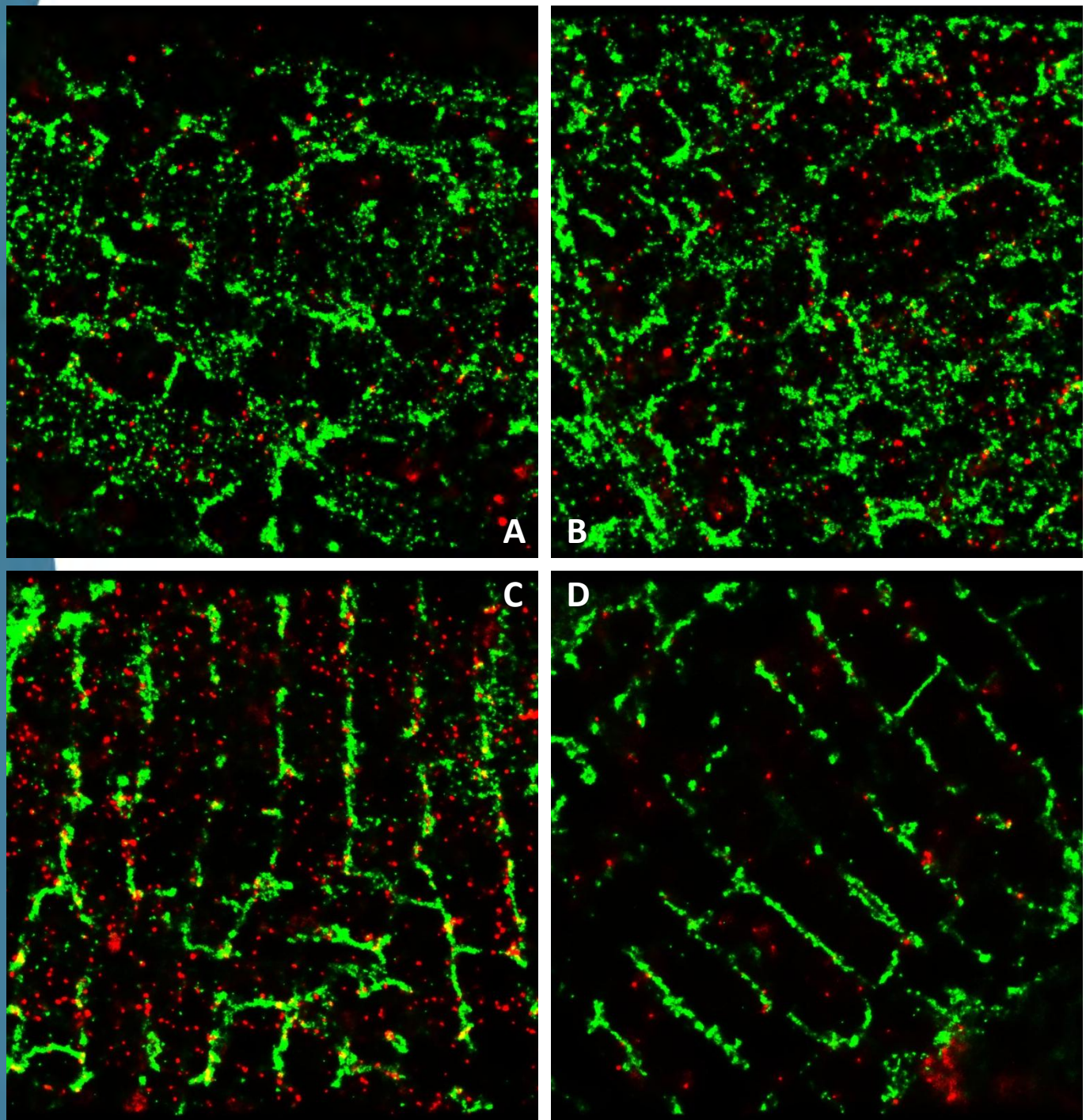
Mouse cells C57BCC#3
Surface distribution of RyR (green) and Cav 3 (red)



Mouse cells TAC sham 2
Surface **(A, B)** and Interior **(C)** distribution of T-tubules (green, **A647**) and JPH (red)







Mouse cells TAC sham 2
Surface **(A, B)** and Interior **(C, D)** distribution of T-tubules (green, **A680**) and JPH (red)

Future Plans

- Wrap up experiments
- Image wild-type and JPH KO cells labeled for RyR and JPH

Cultural Aspect

View from the top of the Auckland Skytower

Acknowledgments

Many thanks to:

- Gabriele Wienhausen, Teri Simas, Peter Arzberger – UCSD PRIME
- Masahiko Hoshijima – UCSD Mentor
- Christian Soeller – Host Mentor
- The University of Auckland School of Medical Sciences
- The National Science Foundation