# Outline

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* Chapter 2: pharmacologic regulation of Wnt signaling using in vitro and in vivo stem cell models
  + Chemical-genetic screen identifies riluzole as an enhancer of Wnt/ß-catenin signaling. [Biechele2010]
  + WIKI4, a novel inhibitor of tankyrase and Wnt/ß-catenin signaling [James2012]
  + Simvastatin Promotes Adult Hippocampal Neurogenesis by Enhancing Wnt/β-Catenin Signaling [Robin2014]
* Chapter 3: identification of disease mechanisms caused by Wnt misregulation in stem and progenitor cells
  + Wnt/ß-Catenin Signaling and AXIN1 Regulate Apoptosis Triggered by Inhibition of the Mutant Kinase BRAFV600E in Human Melanoma [Biechele2012]
  + Protein Kinase PKN1 Represses Wnt/β-Catenin Signaling in Human Melanoma Cells [James2013]
  + A rare WNT1 missense variant overrepresented in ASD leads to increased Wnt signal pathway activation. [Martin2013]
* Chapter 4: Conclusion

## Chapter Structure

This structure will be followed for each body chapter (2-4)

* Chapter Intro
  + Domain specific topics introduced
  + Significance of chapter topic explained
  + Statement of research objective
  + Context from recent literature provided
  + Statement of my specific contribution to each paper included
* Text from published journal article(s)
* Chapter Conclusions
  + Statement of how I achieved research objective
    - broken into sections per result
  + Impact to the field
  + Future directions