I thought I would give you an update/ progress on my work.

I first started with a brief background research and write up into RBCs structure, HS and additionally their surface stability. As I mentioned earlier the surface stability process doesn’t perfectly match the given situation physiologically, but we decided it was a base step for this research.

Next, I looked at the formulation of the amplitude of perturbation equation by A. Prosperetti. I found it appears to be missing some steps and assumes the reader is extremely familiar with the content. Maybe I am missing something, but I cannot account for all parts of the formulas origin.

In lieu of this, I looked at a dimensional analysis approach to understand more. From this, combined with the simplifications in the paper by Q. Zeng *et. al.* I can recommend adaptations to the formula to suit a RBC structure. However, I have no way of testing the modifications accuracy as I do not have any RBC data to compare to.

I then attempted to reproduce the results of the water droplet described in the paper by Q. Zeng *et. al.* to compare the modified amplitude of perturbation equation to. Unfortunately, this proved a more difficult task than first thought. I am currently looking at a different approach to this, but I am not convinced yet that it will work.

I will continue with this approach and write up of my work thus far but if you have any suggestions of pathways or ideas for me to try that would be greatly appreciated.