

1 Timeline of Completion

Table 1: Timeline of Future Research.

Summer2017	Project 4	Experimental data collection in Oxford
	Project 4	Produce effective concentration curves for various tether lengths, ligand sizes
Fall2017	Project 4	Evaluate circumstances of membrane net enhancement/reduction
	Project 4	Compare surface effects on tethering simulations to data
	Project 2	Continue parameter exploration of electrostatics
Winter2018	Project 1	Explore sequential binding for dephosphorylation, reversible phosphorylation
	Project 1	Quantify reversible phosphorylation, create hill plots
	Project 2	Investigate cooperativity, sequential binding from electrostatics
	Project 4	Write paper on tethering
Spring2018	Project 3	Explore sequential binding of multiple ligands, find dominant sequence
	Project 1,2	Write paper for local structuring and electrostatics
Summer2018	Project 3	Begin adding multiple chains, coreceptors to simulation
	Project 3	Find average number of ligands able to bind receptor
Fall2018	Project 2	Write paper for simultaneous binding of ligands
Winter2019	Project 2	Begin investigating steric constraints of TCR clusters
Spring2019	Project 2	TCR Clustering finished, write-up
		Dissertation write-up
Summer2019		Defense
		Finish writing dissertation