

Laboratory Experiment Proposal Submission

Experimental Details

Experiment location: A115
Experiment title: Conformational changes of Dengue E protein leading to fusion with the endosomal membrane
Experiment date: April 15, 2013
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Chemicals Used

<u>Chemical Name</u>	<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>	<u>Special Hazards</u>
POPC	0	0	0	NONE
POPE	0	0	0	
POPG	0	0	0	NONE
POPS	0	0	0	NONE
MES Buffer Salts	2	1	0	NONE

Reactants and Resulting Samples

<u>Chemical Name</u>	<u>Hazardous?</u>	<u>Known Hazards</u>
Silicon Wafers With Tethered Lipid Bilayer On Gold/chrome	N	
Truncated (soluble) E Protein Of Dengue Virus (produced Recombinantly)	N	

Required Safety Equipment

- Glove Chemical
- Safety Glasses
- Hood Acids

Required Laboratory Equipment

- Balance
- Ph Meter
- Other

Experimental Write Up

We will deposited lipid bilayers onto the substrates by vesicle fusion. At each lipid composition we will add E protein and then lower the pH from 8.0 to 5.5. We will first lower the pH in one step. We will follow protein adsorption and assembly with NR scans. After we collect final reflectivity at pH 5.5, we want to finish each run by flushing with buffer at well defined rates (I'll bring a pump) to see at what rate/time the E protein comes off the membrane.

Experimenter Signature: _____

Date: _____

Lab Responsible Signature: _____

Date: _____