

## UC Davis PUF SAMPLE BUDGET #1

### Detailed Budget/Justification

The primary budget is to purchase chemical reagents for the synthesis of my target molecules. Some of the chemicals requested on this list are already in our lab, but my extensive use of them will require me to purchase extra. This is especially true for the fluorinated benzoyl chlorides; to the best of my knowledge, I am the only person who uses this reagent often.

All gloves and safety supplies are provided in lab already.

Compound Name	Amount	Source	Purpose/justification	Price
2,3,4,5-Tetrafluorobenzoyl chloride	5 g	Sigma-Aldrich	Reagent for creating the core oxazoline of my target molecule	\$124.00
3,4,5-Trifluorobenzoyl chloride	1 g	Sigma-Aldrich	Reagent for creating the core oxazoline of my target molecule	\$97.10
2,3,4-Trifluorobenzoyl chloride	1 g	Sigma-Aldrich	Reagent for creating the core oxazoline of my target molecule	\$31.00
n-butyllithium	100 mL	Sigma-Aldrich	Reagent for silylation reaction	\$56.20
Chlorodiisopropylsilane	5 g	Sigma-Aldrich	Regent to compare method for silylation reaction	\$86.20
d-chloroform with .03% v/v TMS	100 mL	Fisher Scientific	Solvent for taking NMR samples to analyze reaction, characterize product, and confirm successful synthesis	\$64.87
			<b>TOTAL</b>	\$459.37

## UC Davis PUF Budget Sample #2

### Budget Outline and Justification

Material	Supplier	Quantity	Total Cost	Justification
<i>C. sorokiniana</i> algae strain	UTEX	1	\$85	<i>C. sorokiniana</i> grows well in FWP, so it is important to test this strain under salt stress to see if lipid accumulation or biomass productivity is increased.
<i>C. vulgaris</i> algae strain	UTEX	1	\$85	<i>C. vulgaris</i> is a microalgae strain that has high lipid contents. Salt stress may be able to further increase their lipid content.
Pipette tips	Fisher Scientific	1- 10 uL 2- 100 uL 2- 1000 uL	\$15 \$50 \$70	Pipette tips will be used throughout the experiments to take samples from the cultures and run Nile Red lipid assays.
Cuvettes	Fisher Scientific	1	\$30	Cuvettes are needed to measure the absorbance of the cultures throughout the experiment in order to construct growth curves.
Carbon dioxide tanks	stockroom	10	\$180	In this lab, experimental cultures are grown under 6% carbon dioxide mixed with air. Microalgae grow just as well or better with carbon dioxide supplementation.
96-well plates	Millipore Sigma	½ case	\$145	These plates will be used for the Nile Red lipid assays to determine the lipid content of samples.
Methanol	Sigma Aldrich	1-4L	\$14	Methanol is used in pigment extractions, lipid extractions, and the Nile Red lipid assay.
Stripettes	Fisher Scientific	1- 5-mL 1- 25-mL 1- 50-mL	\$30 \$80 \$100	Needed for microalgae culturing, setting up the experiments in flasks, and harvesting.
Scintillation vials	Fisher Scientific	1	\$100	These will be used to store biomass from experiments and lipid extracts.
Falcon tubes – 50-mL	Fisher Scientific	1	\$60	Falcon tubes will be used during harvesting and to store samples of liquid.
Hach kits – Total nitrogen	Hach Co.	2	\$328	This Hach kit will measure the total nitrogen content of the food waste permeate.
Hach kits – NH <sub>3</sub> -N	Hach Co.	2	\$208	Anion chromatography cannot measure ammonia content which is vital to know in wastewater remediation. These kits will measure the ammonia content of the food waste permeate.
<b>Total:</b>			<b>\$1580</b>	

### UC Davis PUF Sample Budget #3

Minimum Budget		Maximum Budget	
Replacement Subjects	\$50	Replacement Subjects	\$100
Cloud Storage for Data	\$600	Cloud Storage for Data	\$1200
Hard Drive	\$100	Hard Drive	\$100
Key to the lab	\$20	Key to the lab	\$20
Copying lab notebook and subject log	\$20	Copying lab notebook and subject log	\$20
Poster Printing	\$33	Poster Printing	\$66
Total	\$823	Total	\$1,506

I will be performing analysis on a dataset of 100 subjects for this project. This data set has already been collected, and the results from the main portion of subjects will not require additional cost. However, around 5% (as a minimum) -10% (as a maximum) of subjects typically need to be replaced when conducting an eye-tracking study. We expect that the cost will be \$10 per subject. The subject data will require cloud storage in the lab, which is estimated to be \$100 per drive per month. As a minimum, I would need the storage until the end of spring (6 months) and at a maximum, for a year (12 months). Due to the large size of the dataset, I require a hard drive in order to transfer data and perform analysis at home, which will cost around \$100. In order to keep the documentation and analysis of this project organized, I will require a copy of the lab notebook and the subject log. This will cost around \$20. While running subject replacements and performing analysis, I require my own key to the lab for full access (costing around \$20). After completing my project, I will need to print a poster to present my results at the Undergraduate Research Conference, which will cost \$33. I would also like to present within the psychology department specifically, which would require printing an additional poster.

#### UC Davis PUF Sample Budget #4

<b>Item</b>	<b>Amount</b>	<b>Price per unit</b>	<b>Requested Budget</b>
7 Gallon Squat Container X 10	13	\$29.62 per bundle	\$385
Soil	625 gallons	\$0.56 per gallon	\$350
Rent of greenhouse space	400 square feet X 5 months	\$0.22 per square foot per month	\$440
Twist ties	1 pack	\$3 per pack	\$3
5 ft. x 3/8 in. Bamboo stakes X 500	2	\$90 per bundle	\$180
Lima beans	2 lb	\$2 per lb	\$4
Total	-	-	\$1362

All of these materials are necessary to conduct the proposed research. Among them, only the containers are not expendables. The purchase of the 7-gallon squat containers is requested as containers this large are rare on campus. Large containers will allow the lima beans to grow to sufficient size and achieve more variable morphology. As the proposed project seeks to examine both trellis structure and to some extent, plant structure, the ability to have more variable structures will amplify differences among treatments.

UC Davis PUF Sample Budget #5

**Budget Outline**

<b>Item:</b>	<b>Use:</b>	<b>Cost:</b>	<b>Vendor:</b>
Electrodes	Electrophysiology recordings	~\$840/box	FHC
Germicide	Implant cleaning	\$35 for 6 month supply	Covertrus, Henry Schein
IV Sets	Recording Chamber cleaning	~\$119 for 6 month supply	Covertrus, Henry Schein
Lidocaine Jelly	Cleaning skin edge and alleviating discomfort caused by certain procedures	\$72/box	Covertrus, Henry Schein
Silver Sulfadiazine Cream	Skin Edge maintenance	~\$28 for 2 tubes	Covertrus, Henry Schein
Dental Acrylic	Specialized recording hardware-3D skull print outs	\$275/skull	Covertrus, Henry Schein
Post-op Analgesia	Post implant surgery treatment	\$230 for 2 doses	Covertrus, Henry Schein
Saline Bags -case of 24, 500cc bags	Implant cleaning	~\$200	Covertrus, Henry Schein
<b>Total:</b>		<b>\$1,799</b>	

**Justification Narrative:** The requested amount will allow my lab to purchase supplies required for the care of the animals, care for their implants, and the operation of the recording system we use for our experiments, without which my project would not be possible to achieve. Our IACUC approved protocols require this level of implant care so the experiments can be carried out. Therefore, all the above cleaning chemicals used for implant and surgical care are necessary.