**Undergraduate Research and General Safety Guidelines**

This document has been prepared to let you know what is expected from an undergraduate student during his/her time in our lab. In addition to UC and/or departmental rules, the following guidelines represent our collective priorities for what we believe to be in your best interest while you are here.

1. Safety – Lab safety is an important part of being a professional researcher. Please wear appropriate personal protective equipment at all times. Safety goggles should be worn at all times while doing experiments in the laboratories. When handling chemicals, enzymes, or any type of sample gloves must be worn. A lab coat should also be worn as needed. Please let me know if you need one. See the required lab safety training below that is found on EHS website.

2. Lab Etiquette – The lab is shared by lots of people, so please engage in good lab citizenship by respecting others, their experiments and their space. Lab organization and cleanliness has been an on-going issue in our lab with so many researchers working at various levels of commitment. Therefore, we want you to lead by example. Our goal is to try, whenever possible, to leave the lab cleaner and/or more organized than we found it. If something was left out of place, and you know it’s proper home, please return it. If a chemical or consumable is running low, please inform the mentor ASAP and we will re-order.

3. Lab Notebooks and Data Handling – You are expected to thoroughly document all your research activities in a laboratory notebook. A notebook will be provided for you. You will also be generating a significant amount of electronic raw data, so it is vital to maintain a backup of your data at all times.

4. Reports – It is a good idea to start writing biweekly (every other week) reports and forward to graduate student mentor and research director. These reports should be a brief summary of observations and/or results, problems encountered, and experimental plans for the next two weeks. Chromatograms and/or mass spectra should be included as appropriate.

5. Scientific Literature – We will be giving you some research articles to read throughout your time here. The goal of this is two-fold; 1: to give you sufficient background and context for understanding the importance of the research you will be performing and 2: to provide you more experience reading, understanding, and interpreting scientific literature in general. Towards this second goal, we will occasionally provide you with an article and have you fill out an article evaluation form. This will not only demonstrate that you have read and understood the key concepts communicated in the article, but will help you learn to efficiently extract meaningful information from an article.

6. Access to Mentor – Graduate student mentors are usually on campus during regular business hours from 9:30 am -6:30 PM M-F, but frequently they go in and out of the lab for classes, teaching, or various other commitments. If you can’t find mentor, please feel free to reach out by email or phone, if available. If you need immediate assistance, any of other lab mates can help you.

7. Presentation: The student is required to make couple of presentations during the semester so that he or she becomes comfortable with speaking to bigger audience such as capstone presentations.

**General Safety Guidelines**

No student is permitted to perform research until they successfully complete all of

the laboratory required safety training modules. Safety training is a requirement

whether a student is doing benchwork or not. These modules are available online

at: http://ehs.uc.edu/itc/compliance.asp

Students must complete the Lab Safety Orientation, OSHA Hazard

Communication, OSHA Bloodborne Pathogens and EPA Hazardous Waste

modules.

They are also required to complete **all** Advanced Laboratory

Safety Training modules at: http://ehs.uc.edu/itc/labsafety.asp. The topics

include:

Acrylamide

Autoclaves

Cell and Tissue Culture

Centrifuges

Ergonomics

Ethidium Bromide

Ethylene Oxide

Flammable Liquids

Gel Electrophoresis

Glutaraldehyde

Lasers

Latex

PCR

Peroxides

Ultraviolet Light

When successfully passed, the student must make three copies of **the transcript list** (not individual certificates)

– two copies are provided to Prof. Addepalli with the

third copy retained by the student in their laboratory notebook.