



# Undergraduate Research Opening

**Lab:** UCLA Micro Systems Laboratories (<http://ho.seas.ucla.edu/>)

**PI:** Prof. Chih-Ming Ho

## Research Topic:

### **Big Data Analytics, Experimental Design and Implementation for Cancer Therapeutics**

Most drug resistant cancer types require multiple drugs to effectively terminate cancer cells from the patient's body. Traditional single drug regimen will not work in these multi-drug-resistant cancer types. In this project, we will apply a multitude of engineering methods to find the best drug combinations for the treatment of triple-negative Breast Cancer (TNBC) and acute myeloid leukemia (AML).

## What you will learn:

1. Hands-on lab work involving cell culturing and preparation of cancer drugs
2. High throughput liquid handling robotics
3. Big data analytics, database, MATLAB programming and design of experiments

**Time span:** 1 year (must be available from Oct 2013 to June 2014), 20 hours/week

## Qualification:

- 1 Open to all UCLA undergraduate students. Students, who are experienced in biological experiment such as cell culture, are preferred.
- 2 Programming skill is preferred.
- 3 Understanding of topics in advanced mathematics is preferred.
- 3 Time and commitment to work in a hands-on lab (20 hours a week).
- 4 Excellent work ethic and willingness to learn.

## How to apply:

Prepare the following information:

1. Name
2. Major, year, GPA
3. Briefly describe yourself
4. Resume

, and send them to Hann Wang ([hann@ucla.edu](mailto:hann@ucla.edu)) with the title "Application to Undergraduate Research Position".

Have questions about the research opportunity? Please contact:

Hann Wang

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UCLA Micro Systems Laboratories

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