

# The American Society of Pharmacognosy

<https://www.pharmacognosy.us/job/postdoctoral-researcher-mohimani-lab/>

## Postdoctoral Reseracher-Mass spectrometry-guided isolation of the products of enzymatic metabolism

### Description

The Mohimani lab at the David Geffen School of Medicine at UCLA invites application for a position at the level of Post-doctoral Researcher. Enzymes chemically transform small molecules. Understanding these transformations can help us figure out why some small molecule drugs are active in some patients, but inactive in others. Additionally, these reactions explain why people digest dietary molecules from food differently. Finally, knowledge of how enzymes change molecules can help us to optimize drug leads for the highest activity and least toxicity. <http://mohimanilab.cbd.cmu.edu/>

### Responsibilities

Mass spectrometry is a high throughput technique for collection of reaction data between 100s of enzymes and 10000s of substrates. However, single stage mass spectrometry (MS1) only provides the monoisotopic mass of the molecules, and even tandem mass spectrometry (MS2) is usually not enough for full-characterization of novel small molecules. Multistage mass spectrometry (MS3, MS4 and beyond) is a power technique for extracting information about the structure of known and novel small molecules. The goal of this project is to (i) design protocols for acquisition of MS3 and MS4 on a large number of known and novel small molecules (e.g. reaction of P450 enzymes with libraries of substrates, with focus on lipids, sterols, dietary molecules and other xenobiotics), and (ii) mass-guided HPLC-based purification of novel products. The postdoctoral researcher will be closely collaborating with other computational mass spectrometry researchers in the Mohimani lab for data analysis. This is a collaboration with Dr. Vallim's laboratory at UCLA.

### Qualifications

1. Ph.D. or equivalent degree in Chemistry, Biochemistry or Chemical Biology.
2. Ability to work independently and strong interpersonal skills.
3. Experience with tandem and multistage mass spectrometry is required (e.g. Fusion, Lumos, Eclipse or Ascend instruments).
4. Experience with mass-guided HPLC-based purification is required (e.g. Infiniti 1260 or 1290 with mass detector).
5. Experience with enzyme assays would be a plus.

### Hiring organization

University of California, Los Angeles

### Employment Type

Full-time

### Job Location

Los Angeles, CA

### Date posted

July 22, 2025

### Valid through

31.12.2025

6. Experience with high throughput screening would be a plus.

### **Contacts**

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