

Undergraduate Research Opening

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

PI: Prof. Chih-Ming Ho

Research Topic:

Building a lab-on-a-chip platform for species identification

In 2003, Paul Hebert, a Canadian researcher proposed “DNA barcoding” as a way to identify species. DNA barcoding uses a very short genetic sequence from a standard part of the genome the way a supermarket scanner distinguishes products using the black stripes of the Universal Product Code (UPC). Traditional protocol of DNA barcoding involves the extraction of DNA sample and PCR amplification, all of which is time-consuming. We are currently working on developing a platform that can improve the traditional protocol of DNA barcoding, and shrink down the species identification process to minutes. The result of the project will enable an array of exciting applications, such as aiding the protection of endangered species, real-time data collection for field scientist, and quality control for food industry.

Have questions about the research opportunity? Please contact:

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