

DEPARTMENT OF CHEMICAL & ENVIRONMENTAL ENGINEERING
COLLEGE OF ENGINEERING AND APPLIED SCIENCES

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: 03/01/2020

PROJECT TITLE: Controlling Drug Release

Yoonjee Park
Department of Chemical & Environmental
Engineering
584 Engineering Research Center
yoonjee.park@uc.edu
513 556 1359

Project Description

Current efforts in the area of ocular drug delivery include frequent intravitreal injection, which is not only invasive and inconvenient for patients but also may increase the risk of complications. Therefore, development of stable drug delivery systems which have ability to be released in a controlled manner for a long-term is necessary.

This research project is about development of drug-encapsulated micro-particles, which release drug on-demand. Drug inside the particle core can be released upon exposure to light because the particles are responsive to light. During the summer, you will have experience on developing micro-particles and examining characteristics of drug delivery.

The advisor will provide basic principles in soft materials, drug delivery, and various analytical technique.

Basic chemistry lab experience is required.