UNDERGRADUATES PURSUING RESEARCH IN SCIENCE AND ENGINEERING (UPRISE)

DEPARTMENT OF SCIENCE & HEALTH UC CLERMONT

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: 03/01/2018

PROJECT TITLE: Nanocarriers for Chemotherapy

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Project Description

Area of research: Design and characterization of nanocarriers for chemotherapy.

Research tasks the student will be performing: Synthesis and chemical, and physical characterization of surfactant vesicles. Functional characterization of the interactions between the nanocarriers and chemotherapeutic agents.

Training that the mentor will provide the WISE student: Simple organic synthesis, free-radical polymerization, spectroscopy (infrared, nuclear magnetic, and ultravisible/visible), ultrafiltration, dialysis, interpretation of quasi-elastic light scattering and transmission electron microscopy results.

Specific requirements, if any, that the mentor expects the student to meet: One year of general chemistry, with lab, is a required prerequisite. The student will be expected to present her results at an appropriate national or international scientific conference within one year of finishing the project.