

Summer Undergraduate Research Program
Faculty Project Proposal Submission

Faculty Name:

Emmanuelle Passegué

Department/Organization Affiliation:

Institute for Regeneration Medicine, UCSF

Project Name(s):

Role of Dmp1 in blood formation

General Topic (Keywords):

Hematopoiesis; Hematopoietic Stem Cells (HSC); Leukemia; Mouse Models; Flow Cytometry

Project Description(s):

Dmp1 is a tumor suppressor gene linking the regulation of cyclin D1 with the p19/ARF pathway. Loss of Dmp1 results in the development of a broad range of cancers including blood cancer. We are interested in determining the function of Dmp1 during hematopoiesis using both gain of function approaches (through retroviral transduction of Dmp1) and loss of function approach (through analysis of Dmp1 knock out mice). The goal of this project is to initiate both types of analysis and to provide the first understanding of Dmp1 function in blood formation.

Desired Skills or Experience:

Prior lab experience

Experience in tissue culture, molecular biology (cloning), flow cytometry, protein analysis

Must be comfortable working with mice

Time Commitment:

Full time preferred, minimum 20 hours per week

Will favor student interested in continuing through the following academic year

Preferred Starting Date:

As soon as possible