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2023 VRI Summer Internship Program

Vitalant Research Institute (VRI) in San Francisco, an affiliate of the University of California, San Francisco, has openings for ***full-time 8-week paid summer internship positions beginning June 19 through August 11, 2023***. Selected students are eligible for a $4,000 stipend for the successful completion of the 8-week program. Students will participate in seminars, presentations, and institutional events.

Requirements

Candidates are required to be enrolled in an educational institution (must be matriculated in semester before or after summer 2023, work in a team environment, set priorities, and devote full time to this training experience. Candidates must also have effective oral and written communication skills and be self-motivated with good organizational skills.

2023 Application and Deadline

Due April 14, 2023

The Summer Internship Program at VRI provides undergraduate and master's students the opportunity to participate in research in the areas of transfusion medicine and cellular therapy through pairing with an investigator/mentor in one of the following research areas:

1 **- A summer internship is available in the Dr. Norris Immunology Laboratory**. Ongoing research projects focus on the molecular mechanisms of HIV and COVID-19 pathogenesis, with special emphasis on novel mechanisms of immune signaling mediated by extracellular vesicles in disease states. The summer project will focus on optimizing methods to determine the effect of extracellular vesicles derived from COVID-19 individuals in mediating immune responses leading to inflammatory cell death in endothelial cells an *in vitro model*. Vitalant Research Institute - Philip J. Norris, MD

2 - **A summer internship is available in the laboratory of Dr. Satish Pillai to investigate the molecular biology and pathogenesis of HIV/AIDS from an evolutionary perspective.** Ongoing projects in our lab include studies of host and viral factors involved in the maintenance of HIV latency, which is the principal obstacle to a cure for HIV infection. Projects will involve learning cell culture, flow cytometry, next-generation sequencing, and gene editing techniques to study the virus-host interface. Vitalant Research Institute - Satish K. Pillai, Ph.D.

3 - **A summer internship is available in the cell biology laboratory of Dr. Marcus Muench**. Will use cells and progenitors isolated form human tissues. The project will involve testing the differentiation of these cells in various in vitro and in vivo systems. The internship will offer the opportunity to gain experience in basic laboratory skills in cell culture, flow cytometry, and work with xenogeneic transplant models. Basic concepts in stem cell biology, hematology, and developmental biology will be taught. Applicants must be willing to work with human pathology specimens, transplant models and be willing to handle potentially infectious agents. Vitalant Research Institute - Cell Therapy

4 - **A summer internship is available assisting Dr. Shana Hughes, PhD, MPH**, with several projects focused on understanding motivations among blood donors. Shana is an applied medical anthropologist, currently engaged in formative qualitative and "mixed methods" research on this topic. Responsibilities will vary depending on the intern's background (ideally pursuing a master's degree in a social science discipline but advanced undergraduate also considered) but may include assisting with qualitative data collection, management, and analysis for studies in the US and South Africa and supporting a focused literature review. https://research.vitalant.org/Investigators/Individual-Investigators/Shana-Hughes.aspx.

5 – **A summer internship is available in the laboratory of Dr. Kimberly Thomas.** Dr. Thomas is seeking a summer intern interested in studying the immune response to platelet transfusion. Platelets interact with almost every classical immune cell (T cells, monocytes, macrophages, neutrophils, NK cells, dendritic cells, and B cells); as such, you will become well-versed in conceptualizing, designing, and executing experiments to assess how platelets alter human immune cell function. During the internship, you will gain experience in many laboratory techniques set in bio-safety level II (BSL-2) conditions including, but not limited to, use of biosafety cabinet, primary human cell culture, flow cytometry, cellular assays, multiplex analyte detection, and fluorescent microscopy. Your training will also include data analysis, visualization, documentation using an electronic notebook, and weekly participation in lab meetings. You will also gain experience presenting your research in both small and large group settings. Please contact Dr. Thomas with questions at KThomas@vitalant.org. https://research.vitalant.org/Investigators/Individual-Investigators/Kimberly-A-Thomas,-Ph-D.aspx

6 - **A summer internship is available in the laboratory of Dr. Rachael Jackman**. Our lab studies the immunology of blood transfusion and uses animal models to evaluate immune responses to transfusion such as alloimmunization and rejection. Interns will have the opportunity to gain experience in mouse handling, flow cytometry, and other lab skills along with basic concepts in immunology. Vitalant Research Institute - Rachael P. Jackman, Ph.D.

CLICK HERE to email your application **with a letter of interest**, and copy of your college transcript (**optiona**l*):

Attention: F. Assenzio, Human Resources

***If you choose to send your transcripts, unofficial copies of transcripts are acceptable.**