

UC DAVIS

HEALTH

Department of Pathology and Laboratory Medicine

UC Davis College credit opportunities are available for students interested in pre-med, pre-vet, or scientific medical research. Faculty in the Department of Pathology and Laboratory Medicine at UC Davis School of Medicine invite qualified undergraduate students to enroll in the **PMD 199** course, which provides credit for participating in scientific research. This course allows students to gain valuable research or pre-medical experience with state-of-the-art equipment and techniques while receiving course credit. Additionally, if you are not interested in receiving course credit, **volunteering** is an option as well. A list of interested faculty and their research areas are:

- **Brittany Dugger, PhD**

The goal of Dr. Dugger's laboratory is to understand the diversity in dementias, specifically Alzheimer's disease, through the use of human brain tissues and clinical data. We are overwhelmingly excited to contribute fundamental knowledge of the selective vulnerability of disease to aid in optimal development of biomarkers and therapeutics for dementias. The skills used in the laboratory revolve around neuroanatomy, neuropathology, and statistics; common techniques include immunohistochemistry, biochemical analysis (western blots/ ELISAs), image analysis, and basic statistics for analysis of data. Contact: bndugger@ucdavis.edu

- **Verónica Martínez-Cerdeño, PhD**

The goal of Dr. Martínez-Cerdeño's laboratory is to determine the etiology and pathology of certain forms of autism. In addition, her lab studies the role of stem cells in the development, evolution, and pathogenesis of the mammalian cerebral cortex. The anatomy and pathology of autism and related diseases in postmortem brains are studied and based on the findings, animal models are developed for autism research.

Contact: vmartinezcerdeno@ucdavis.edu

Laboratory website: www.ventricular.org

- **Lee-way Jin, MD, PhD**

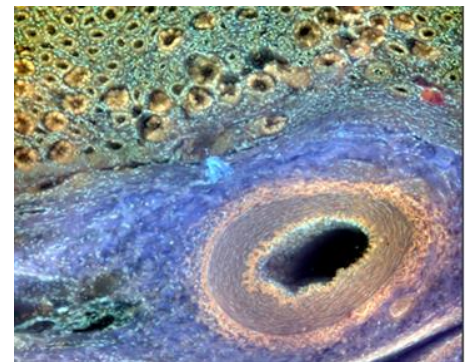
Dr. Jin's laboratory seeks to develop and test therapeutics to treat Alzheimer's disease and Rett syndrome. The lab is currently focused on understanding the microglial pathology of these neurological disorders using state of the art techniques.

Contact: lwjin@ucdavis.edu

- **Richard Levenson, MD**

Dr. Levenson's lab is developing new and exciting techniques for microscopy. One such innovation, MUSE, uses UV light to enable imaging of fresh tissue directly, without having to prepare a glass slide—which can accelerate patient care by hours or days. Another new technique is a method for simply detecting collagen in pathology specimens; collagen distribution may be one of the best ways to distinguish between good and bad prognosis cancers. Students can be involved in research using the imaging technologies, possibly including artificial intelligence for image improvement and clinical analysis.

Contact: rmlevenson@ucdavis.edu



If you are interested in working with any of these faculty members on research, please contact them through email. For PMD 199, two or three hours per week correspond to one unit. Most of the professors are located at the School of Medicine and UC Davis

Health campus in Sacramento; however, busing for students is available between the two campuses. Please contact Christine Bertini, 916-734-2350 or email at clbertini@ucdavis.edu if there are any questions.