Welcome to the Koliwad Lab at UCSF

Exploring how nutrients interact with the immune system in health and disease

My laboratory investigates how innate immune cell types in tissues and organs throughout the body sense nutrients, and how this sensory capacity impacts metabolic function under normal conditions and contributes to common and devastating diseases, such as obesity, diabetes, atherosclerosis, and fatty liver disease.

The lab is particularly focused on how dietary lipids modulate the activation state of myeloid cells to regulate tissue inflammation, fibrosis, and metabolic function. These cell types include CNS microglia, tissue-resident and infiltrating macrophages and monocytes, as well as dendritic cell types.

We rely on cell-based systems and experimental mice in our work, but have transitioned into translating our findings in model systems into people, both lean and obese.

I invite you to explore our site and find out more about the things we are doing!