

The application by Drs. Rosner (UC) and Pauli (UIC) is designed to characterize the effects of cannabidiol (CBD) and other congeneric cannabinoids on the interferon response. The work builds on the group's recent publication in *Science Advances* on inhibition of SARS-CoV-2 infection by CBD through activation of interferons. There are 3 specific aims: (1) Source high quality cannabinoids and improve methodology for their purification and quality control (Pauli lab); (2) Identify key mechanisms by which CBD activates antiviral interferon response (Rosner lab); (3) Determine the ability of CBD homologues to more effectively induce interferons and block SARS-CoV-2 infection (Pauli and Rosner labs).