

Genetics, Bioinformatics, & Systems Biology Colloquium

presents

## Alexander Hoffmann, PHD

Professor of Microbiology **UCLA** 













\*Live stream via <u>Zoom available</u>

## Cell Identity Defined by Network **Dynamics**

Classical Biology often defined cell types by expression of specific markers. Contemporary Biology employs Next Gen Sequencing to characterize the presence or abundance of all genetic loci. Yet, biological function involves the dynamical systems of their molecular networks. Are the dynamics of the molecular network more informative of cell stat than static measurements? My lab has addressed this question in variety o systems, and addressed how such dynamics may be probed experimentally or computationally to characterize cell states. I will describe our work toward gaining fundamental basic science insights, and applications to cancer cells responding to therapeutic treatment and immyune macrophages responding to pathogen ligands.







