Division of Biology Presents:

HIGH THROUGHPUT GENETIC SCREEN TO IDENTIFY HOST FACTORS AND ANTI-VIRAL TARGETS AGAINST ORTHOPOXVIRUSES

* Friday, November 1, 2019 • 3:30 • Ackert 221

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2019 Presidential Early Career Award for Scientists and Engineers (PECASE) Winner
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Haploid genetic screen in HAP1 cells identified host proteins required for monkeypox virus replication. We validated the requirement of Golgi-associated retrograde proteins (GARP) complex (VPS 51 – 54) and Component of oligomeric Golgi (COG) complex (COG 1 – 8) for orthopoxvirus (OPXV) replication using individual gene knock out. OPXV exploit retrograde trafficking pathway for extracellular virus (EV) formation. Inhibitors of retrograde pathway, Retro-1 and Retro-2 prevented EV formation and virus spread, a potential mechanism to prevent OPXV infection. Nearly hundred novel compounds containing benzodiazepine scaffold (Retro-1 like) were screened to identify most potent inhibitors.

If you would like to visit with Dr. Panayampalli, please contact Zhilong Yang at zyang@ksu.edu

Coffee & cookies served preceding the seminar in Ackert Hall, Room 225