Parasitoid wasps are insects that feed upon and develop within other insects as hosts. These wasps are extremely diverse and engage in a number of strategies to ensure successful parasitism of hosts. One strategy that has evolved multiple times is the association with viruses that are produced in female wasps’ reproductive tracts. Virions produced are delivered to host insects where they are known or hypothesized to play a role in immune suppression or modification of the host environment to support parasitoid development. Whole genome sequencing of wasps and virus components has revealed both common and distinct features of how these associations have evolved and function. Analysis of viral gene expression in wasps and their hosts has revealed differences in viral gene activity in different environments that may correspond to the role of the viruses in each different host. Functional experiments used to experimentally manipulate the viruses has revealed how they are transmitted and provided information on individual gene functions. These kinds of data reveal how these novel partnerships can evolve and function to benefit wasps and their progeny.

If you would like to visit with Dr. Gaelen Burke, please contact Rollie Clem at rclem@ksu.edu.

Join Zoom Meeting
https://ksu.zoom.us/j/93945942171?pwd=VlBvMzROc1BJa2c2UGFlNfVIV01TUT09
Meeting ID: 939 4594 2171
Passcode: b10l0gy