Research In Progress Seminars

Tuesday, October 18, 2016
2:00PM

Location: The Fishbowl, 2120 Biological Sciences 3

Speaker:
Srikiran Chandrasekaran, MCSB PhD Program

Talk Title:
Accounting for viral transport dynamics in lettuce for Norovirus infection risk

Abstract:
This talk will begin with the purpose and structure of a Quantitative Microbial Risk Assessment or QMRA. Then we will focus on the specific case of the human Norovirus (NoV), which is responsible for an estimated 23 million cases of gastroenteritis in the US alone. Research has shown that NoV not only adheres to the surface of produce (e.g, lettuce) but also gets internalized when present in the irrigation water. Then we will discuss a model that was built to track the viral transport from the irrigation water to the final product, which is the key contribution. The parameter estimation approach including Bayesian optimization will be detailed. Then some estimates of the safety of consuming lettuce containing NoV will be presented in comparison to the acceptable standards set by the USEPA and the WHO.

Questions:
Please contact Naomi Carreon at: ncarreon@uci.edu or Kerrigan Blake at: kerrigab@uci.edu