**Vibrio cholerae**: human pathogen and bacterial predator?

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Dr. Provenzano focuses his research on *Vibrio cholera* type VI secretion system. *Vibrio cholerae* is the causative agent of cholera, a devastating and potentially lethal form of diarrhea that persists as a significant cause of morbidity and mortality all over the world. His studies on *Vibrio cholerae* strains endemic to the lower Rio Grande Delta led to the discovery of a wide range of effector/immunity pair alleles that kill adjacent cells but protect kin bacteria from T6SS-mediated killing. T6SS-mediated interspecies competition is linked to *V. cholerae*’s ability to colonize the human host because nearly all strains that harbor CT and TCP (which reside on horizontally mobilized genetic elements CT-phage and VPI respectively) possess the same T6SS effector/immunity alleles. His lab is currently working on characterization of novel episomal genetic elements and whole genome sequence data mining of *V. cholerae* strains endemic to the lower Rio Grande Delta as well as explorations of applications for therapeutic intervention strategies based on these T6SS discoveries.

**Monday, October 9, 2017**

4:00 p.m.

Auditorium/Room 108

BioBio Building

Refreshments at 3:30 p.m. in the lobby.

Seminar co-hosted with the Ecology & Evolutionary Biology (EEB) Seminar Series