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## SÉMINAIRE

# "The common language of mutualism and pathogenic animal-microbial associations: Lessons from the squid-vibrio system"

**Margaret McFall-Ngai**

One of the principal questions in the study of animal-bacterial interactions is: What are the cellular and molecular differences between beneficial and pathogenic associations? The study of several invertebrate symbioses has demonstrated that, although the outcomes are different, beneficial and pathogenic associations share much of the same molecular language. This presentation will focus upon contributions to the field made by the study of the relationship between the Hawaiian bobtail squid *Euprymna scolopes* and its luminous bacterial partner *Vibrio fischeri*. In this symbiosis, the bacteria are acquired anew each generation and form persistent interactions along the apical surfaces of host epithelia, a pattern of symbiosis that is perhaps the most widespread among animals. The mechanisms underlying the processes of host-symbiont recognition, induction of partner development, and the maintenance of a balanced relationship will be highlighted.