

Séminaire - 8 Février 2019 à 11h



Sur invitation du Dr Christine Ferrier-Pagès

Nous aurons le plaisir d'accueillir le **Dr Mauricio RODRIGUEZ-LANETTY** (Associate Professor and leader of the Integrative Marine Genomics and Symbiosis (IMaGeS Lab) in Florida International University, Miami, USA) qui nous présentera le **Vendredi 8 Février à 11h** en salle de réunion du CSM (2ème étage) un séminaire intitulé :

Stability and Resilience of Coral Microbiota in the face of recurrent bleaching episodes

As projected for the Anthropocene era, coral reefs are experiencing an increased frequency of thermal anomalous events – shifting the stress scenario from temporal isolated “pulse” disturbances to a more “pressed” situation caused by annual recurrent stress events. This is posing an exacerbated threat to all the symbiotic partners within the coral holobiont, including the obligate and nutritionally important photosynthetic zooxanthellae and the diverse-associated bacterial community that has co- evolved with coral species, which is also known to contribute to the coral host with important functional benefits. In this seminar, I will address the topics of stability and resilience of the coral-associated microbiome (Zooxanthellae and bacterial community) in response to annually recurring hyperthermal events, a scenario soon expected to become the norm. This contrasts to previous research that has only been able to describe the influence of symbiont composition and the dynamic processes of symbiont repopulation during single episodes of hyperthermal events, followed by years of less-stressful conditions. I will present results indicating that recurring episodes of thermal stress may shift the balance from dominant host-specialist to background host-generalist zooxanthella and may impart physiological resilience to rapid environmental change. Furthermore, I will present data that support the existence of a conserved non-random, transitory bacterial assemblage that appears after bleaching events, which might play a role facilitating microbial community resilience in corals. These changes of the coral-associated microbiota represent potentially important ecological process by which symbiotic corals acclimatize to changing ocean conditions.

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