

## Nucleoside tracer approach to the aquatic microbiology

Yuya Tada

Heterotrophic bacteria are known to play a key role in driving the carbon and nutrient cycles in the ocean. The fundamental questions in marine microbial ecology are “which taxa or phylogenetic groups account for total bacterial productivity?” and “what is the relative contribution of each?”

Answers to these are substantially important to our understanding of the food web dynamics and biogeochemical cycles in the ocean. I have developed a novel technique, named bromodeoxyuridine immunocytochemistry-fluorescence in situ hybridization (BIC-FISH), and BrdU Flowcytometry (BrdU-FCM). In this seminar, I intend to introduce these techniques and show some available results on the BrdU approaches.