

22nd Special seminar on The IDEC Institute, 12th PHIS Seminar

Date: May, 18th, 2023, 11:00~

Place: Hiroshima University, Graduate School of
Advanced Sciences of Matter Build, 6F Seminar room

Online: <https://onl.bz/S97ETFT>

Title: Diversity and taxonomy of marine bacteria

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Affiliation:

Postdoctoral

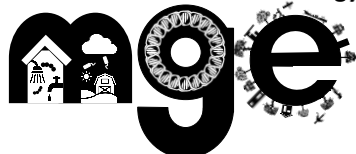
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Abstract

Marine systems have great biodiversity. The study of microbial diversity plays a key role in the scientific and technological development of a country. Taxonomy is a pragmatic science, with the aim of establishing stable, predictable, objective and highly informative classification systems which encompasses ecology through ecogenomics. The identification of an organism is a fundamental step to know its biology. Classification systems must integrate information from the genomic to the ecological level. In this study, we demonstrated the state of the art and establish the foundations of the genomic taxonomy of prokaryotes. Genomics represents a divider in microbial taxonomy, in which genomic analyzes contribute to establishing a natural classification that reflects genetic, evolutionary and ecological aspects. We also evaluated the use of the MALDI-TOF MS methodology as a rapid screening tool for marine bacteria. In addition, we demonstrated the relevance of genome analysis in the design of new species *Halomonas coralii* sp. nov. And finally, the establishment of the genomic taxonomy of *Prochlorococcus*, one of the most abundant organisms in the oceans.

Microbial Genomics and Ecology



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