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## Developmental and evolutionary immunity of marine molluscan animals: Immune diversity and evolution

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Recently relevant findings from molluscs expanded our traditional concepts in the field of innate immunity, namely from simple and homogeneous invertebrate immune system to the sophisticated and diversified innate immune system to host defense against pathogens, which include the effect of molecular diversity or increased abundance on immune diversity of molluscs, pathways that involved in molluscan immunity and how mollusk and pathogen interact at the molecular level. In particular the completion of related complete genome sequence from mollusc species gives the opportunity to examine the evolution of gene families, sequence divergence from different components of the innate immune system and the origins of some novel immune-related genes and their families in evolution. Here, we detailed some of the examples among these mollusc models to emphasize the diversities of the immune genes, their families and the diversified responses of innate immunity. We sought to discuss the drives or evolutionary dynamics of differences currently within the innate immune system from the present study existing in fact. In addition, we put forward the necessity of studying on comparative immune diversity with different invertebrate models.

### Biography

Xinzhong wu is currently a Professor of Qinzhou University and Dean of Ocean College, Qinzhou University, China. He is a Scientific Researcher of Marine Mollusc Disease and Mollusc and Fish Immunology. He has published 46 papers in English reputed journals and more than 60 papers in Chinese. Now, he is the 11<sup>th</sup> council member of Asian Fisheries Society; Chair of workshops, symposia and training committee of AFS; Councilor of Federation of Asian Biotech Association; Member of Steering Committee of World Oyster Society; Councilor of China Society of Fisheries and; Councilor of Chinese Society of Oceanography. He served as an Editorial Board Member in several journals of international and China.

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