

Antimicrobial peptides and adaptation to extreme deep-sea hydrothermal vents

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Résumé (10-15 lignes max, calibri 12, interligne 1,5) :

Deep-sea vent invertebrates rely on symbiotic associations offering an opportunity to discover biochemical adaptations that allow animals to thrive in such a hostile habitat. This presentation gives a view of this interaction from the host side and notably from the immune side of the Pompei worm, *Alvinella pompejana* and of the shrimp *Rimicaris exoculata*. Data provide insights into the unique nature and peculiar selective trend of abyssal immune actors namely antimicrobial peptides (AMPs), and into the manner in which these two extremophiles use them to interact with the particular microbial community of the hydrothermal vent ecosystem. They exhibit amino acid sequences with adaptive chemo physical properties allowing to fit both extreme abiotic and biotic factors. Deep sea organisms thus offer perspectives for studying immune genes in an evolutionary ecological framework.

Références :

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