Selezione n. 2020S65 – Colloquio

Elenco n. 1

1. Caratterizzazione dei profili di espressione genica in specie marine. Dal campionamento alla preparazione di librerie per sequenziamento NGS

2. Definire un possibile protocollo per l'identificazione di SNPs in specie marine di interesse alimentare

Accertamento lingua inglese, mediante traduzione da un articolo (*High throughput sequencing of RNA transcriptomes in Ruditapes philippinarum identifies genes involved in osmotic stress response - di Hongtao Nie,Liwen Jiang, Peng Chen, Zhongming Huo, Feng Yang & Xiwu Yan*)

"Ruditapes philippinarum, is an economically important marine bivalve species. The ability to cope with low salinity stress is quite important for the survival of aquatic species under natural conditions. In this study, the transcriptional response of the Manila clam to low salinity stress was characterized using RNA sequencing. The transcriptomes of a low salinity-treatment group (FRp1, FRp2), which survived under low salinity stress, and control group (SRp1, SRp2), which was not subjected to low salinity stress, were sequenced with the Illumina HiSeq platform. A total of 196,578 unigenes were generated.
GO and KEGG analyses revealed that signal transduction, immune response, cellular component organization or biogenesis, and energy production processes were the most highly enriched pathways among the genes that were differentially expressed under low salinity stress"

Selezione n. 2020S65 – Colloquio

Elenco n. 2

1. Metodi per l'analisi funzionale dei profili di espressione genica in specie marine
2. Metodi per la caratterizzazione del microbioma in specie marine di interesse alimentare

Accertamento lingua inglese, mediante traduzione di un estratto da un articolo (*High throughput sequencing of RNA transcriptomes in Ruditapes philippinarum identifies genes involved in osmotic stress response - di Hongtao Nie,Liwen Jiang, Peng Chen, Zhongming Huo, Feng Yang & Xiwu Yan*)

"Many commercially important aquatic animals are sensitive to low salinity stress, and mass mortality is often caused by heavily rainfall in summer. Therefore, it is very important for both scientific researchers and fisheries to investigate the mechanisms underlying the low salinity tolerance of aquaculture species. An increasing number of studies have characterized the acclimation responses of aquaculture animals to low salinity stress, and
it has been shown that aquatic animals can gradually shape their salinity adaptive phenotypes with extensive biochemical, metabolic, and physiological acclimation processes, and the signaling transduction, ion transport and transcription regulation are likely involved in the adaptive process to hypo-osmotic conditions"