**FF OR 09**

## Screening of mangroves for tyrosinase producing Actinomycetes

T. MUTHULAKSHMI*, S.S. GREESHMA, C.J. TOMS, RANJIT KUMAR NADELLA, V. MURUGADAS, M.M. PRASAD

ICAR-Central Institute of Fisheries Technology, Matsyapuri, Kochi, Kerala, India;**muthuocean@gmail.com*

Mangrove actinomycetes serve as sources of antibiotics, bioactive compounds and extracellular enzymes. Extracellular tyrosinase with mono-phenolase and di-phenolase activity were isolated from mangrove actinomycetes for assessing the production of intermediate substance of melanin formation. Mangrove samples were collected from Puduveppu, Nettur, BOT bridge areas of Cochin. Kerala and Koringa region of Kakinada, Andhra Pradesh were screened for actinomycetes at different temperature treatments and 60°C for 1 hour was found to be the right conditions for isolation of actinomycetes from mangrove soils. Forty isolates were purified and checked for the production of tyrosinase enzyme both for methods of positive and negative screening. Tyrosinase activity of positive isolates was analyzed with dynamic reader in the presence of L-DOPA and L-tyrosine for di-phenolase and mono-phenolase respectively. High yielding actinomycetes need to be identified with 16srRNA for production of intermediate products, mainly L-DOPA.

**FF OR 10**

## Cloning and expression of defense gene from shrimp

J.M. SHREEHARSHA, T.G. PUNEETH, B. DEBASHIS, M. RAJEISH, T. SURESH, S. MALATHI, M.N. VENUGOPAL, S.K. GIRISHA*

College of Fisheries, Mangalore, Karnataka, India; **skgirisha@gmail.com*

Bacteria of the genus *Vibrio* represents the most harmful pathogenic bacteria causing huge production losses in shrimp farming. To combat these pathogens, shrimps primarily depend on their innate defense mechanisms which include antimicrobial peptides (AMPs). Identification and molecular characterization of novel genes involved in the immune response will be an important step towards better understanding of the innate immune system of shrimps. Ribosomal proteins (RPs) belong to group of unconventional antimicrobial peptides, having multiple functions like translation and antimicrobial activity. In the present study, ribosomal protein L8 gene was isolated from black tiger shrimp, *Panaeus monodon* haemolymph upon challenge with *Vibrio harveyi.* The gene was cloned in pQE 30 vector by directional cloning and transformed in to *Escherichia coli* SG13009 competent cells. The recombinant molecule showed an ORF of 774 bp, encoding a polypeptide of 257 amino acids. The purified peptide when electrophoresed on 15% SDS-PAGE showed a molecular weight of 30.1 kDa. Nucleotide and amino acids sequence derived in the present study was compared with the ribosomal protein 8 of *L. vannamei* available in GenBank which showed 97% and 99 % identity respectively.

**FF OR 11**

## Conformational study of synthetic KISS1 peptide of golden mahseer (*Tor putitora*) in membrane like environments

D. THAKURIA*, N. SHAHI, A.K. SINGH, K.H.C. VICTORIA