Salmonella, E. coli and Vibrio origin, respectively. PCR amplifications of the invA, lamB and toxR genes yielded single bands at 284 bp, 309 bp and 368 bp, respectively for the microbes mentioned above. Our preliminary results denote the incidence of bacterial contaminants in Anadara granosa as well as the potential use of the invA, lamB and toxR genes as diagnostic tools to aid their detection. Since gastroenteritis confers a substantial burden to society, a greater awareness and enhanced public health efforts should be underlined to minimize the risk of outbreaks. Further analytical studies are warranted to substantiate our findings.

**M07: Cloning, Expression and Immune Studies of a Specific DNA Marker for Salmonella Typhi**

Noradilin Abdullah,1,2, Chua Kek Heng3, Kwai Lin Thong1
1Institute of Biological Science, Faculty of Science, University of Malaya.2Faculty of Biosciences and Medical Engineering, UTM, 3Department of Molecular Medicine, Faculty of Medicine, UM.
Email: thongkl@um.edu.my

ST332, a 332 bp gene marker is one of the components incorporated in the Salmonella EZplex Kit for simultaneous detection of the foodborne pathogens Salmonella Typhi (S. Typhi), S. Paratyphi A and Salmonella spp. It has been identified as a hypothetical protein of S. Typhi strain CT18 (STY4528). In a previous study, the gene marker showed specificity in DNA-based detection of S. Typhi via polymerase chain reaction (PCR). Therefore, in this study, its specificity in an immunoassay was examined. For this purpose, the gene was amplified by PCR and cloned into a pGEX-4T-1 expression vector. Successful recombinants were produced by transformation of the cloned vector into E. coli BL21 grown on media containing 100 μg/ml carbenicillin. Analysis of the clones by PCR screening and sequencing proved that the gene insert was cloned at the right open reading frame and the BLAST identity of the cloned gene insert also matched that of the previous study, STY 4528. Therefore, the fusion gene was expressed by IPTG and the total protein was purified by NP-40 extraction buffer. The extracted protein was hybridized against pooled typhoid patients' sera that had antibodies specific to S. Typhi antigens by dot-blot immunoassay. The results revealed that the expressed protein has a weak affinity for the immunoassay.

**M08: Actinomycetes as Potential Producers of Quorum Sensing Inhibitors**

Kavimalar Devaraj, Geok Yuan Annie Tan, Kok Gan Chan.
Institute of Biological Sciences, University of Malaya, 50603 Kuala Lumpur.
Email: kavimalardevaraj@hotmail.com; gyatan@um.edu.my

Actinomycetes are now targeted for their ability to inhibit quorum sensing in pathogenic strains of bacteria due to their capability to synthesise and produce a wide variety of secondary metabolites. In this study, a total of 147 actinomycete isolates from the Microbia Resources Laboratory Culture Collection were screened for their ability to inhibit violacein production by Chromobacterium violaceum CV026, with exogenously supplied C6-HSL. Nine isolates were observed to have potential anti quorum sensing activity. Phylogenetic characterization indicated that the isolates belong to the genera Streptomyces and Micromonospora. This study exhibited the prospective ability of actinomycetes in quenching quorum sensing signals accountable for bacterial virulence. The discovery of potential quorum sensing inhibitors is essential in attenuating the emergence of antibiotic-resistant bacteria.