COMMONWEALTH SERUM LABORATORIES

File No.

INTERNAL COMMUNICATION

From: Dr. Gulasekharam

To:Dr. ... McCarthy

Subject: Letter from Prof. Nossal re halophilic organisms (Beneckea group) from Coral

A halophilic gram-negative non-sporing marine organism Vibrio parahaemolyticus and closely related species have been recognized as an important cause of gastro-enteritis associated with the consumption of sea-foods in summer. Soft tissue or systemic infections have been occasionally reported. Though these organisms were originally thought to be limited to Japan, they have since been isolated from fish, shell fish and coastal sea waters in other countries. The pathogenicity of Vibrio parahaemolyticus has been attributed to a haemolytic toxin containing phospholipase Λ and lysolecithinase enzymes.

In 1968-69, a halophilic marine Vibrio species was implicated in an outbreak of gastro-enteritis on a tropical island tourist resort off the north-eastern coast of Australia, the organism being isolated from patients (stools) and from samples of bore and sea water. These isolations were done at the Laboratory of Microbiology and Pathology, State Health Department, Brisbane, and strains should be available from that laboratory. The Sydney School of Public Health and Tropical Medicine were also carrying out a survey of these organisms. They may be able to supply cultures. Other possible sources of information would be (a) Prof. Burdon-Jones, Professor of Marine Biology, James Cook University of North Queensland and (b) Prof. R. Morita, Oregon State University.

I have not seen any report of the isolation of these organisms from coral. Their presence on coral is of course a possibility in view of their presence in sea water. Although of considerable general interest, there has been no research project at C.S.L. on these organisms nor, as far as I know, is there likely to be one in the immediate future, under the present conditions.

J. GULASEKHARAM 24th January, 1975