OMICS International
conferenceseries.com

J Prob Health 2015, 3:3
http://dx.doi.org/10.4172/2329-8901.C1.021

4th International Conference and Exhibition on

Probiotics, Functional and Baby Foods

November 03-05, 2015 Valencia, Spain

Molecular typing of *Mycobacterium Leprae* by variable number tandem repeats in multi-case families of leprosy

Idress Hamad Attitalla
Omar Al-Mukhtar University, Libya

During the study period 2011-2013, 14 multi-case families have been identified from unique screening of 1084 houses from Andhra Pradesh and Odisha states. In all multi-case families, all first identified individuals were noted as MB. A total of 34 cases were successfully screened from multi-cases families, SSS samples were obtained and DNA was isolated and subjected to PCR-VNTR analysis. Families-1, 7, 11, 13 have copy number 4 and families-4, 14 have copy number 5 for locus (GGT) 5. Most of the families have copy number 2 for locus 21-3. The copy number 9 of (GTA) 9 has linked with households of family-1, 13, 14 and copy number 13 has seen in family 4. Copy number 11of (AT) 17 loci has coupled with households of family-1, 4 and copy number 12, 13 have associated with families 13 and 14. Copy number 8 of (AC) 9 locus has associate with households of family-1; 9 copy number in 4 and 14 families; 10 copy number in family13. For 6-7 locus, households of family-1, 3, 6 have 7 copy number; households of families -2, 5, 12, 13 and 14 have copy number 6; 5 copy number has seen in family-4. Households of family-1, 6, 8, 13 and 14 have 5 copy number; households of family-4 has copy number 4; 6 copy number has seen in family-5 and 12 for locus 27-5. 23-3 locus has copy number 2 in multi-case families. 12 copy number of (TTC) 21 loci have connected with households of families-1, 13 and 14; families-2 and 4 have copy number 10. Multi-case families those have same copy number of VNTR loci have been infected with leprosy patient in the households. The multi-case families whose have different copy number have infected with leprosy bacilli from the environment.

idressattitalla2004@yahoo.com

Protein profiling, PGH activity and enzymatic studies in extracellular fluid of a potential probiotic microbe: An attempt towards development of a probiotic

Jasbir Singh, Suman Dhanda, Dimpi Gandhi, Preeti Chanalia, Davender Kumar, Dimple Nanda and **Tannu Talwar**
Kurukshetra University, India

Though there are insufficient reports on how probiotics benefit yet providing enzymes to host may be one of the mechanism of probiotic action. *Pediococcus acidilactici* is harmless lactic acid bacteria with probiotic potential, so extracellular proteases of *Pediococcus acidilactici* were analysed. Protein profiles studied by gradient SDS-PAGE revealed that extracellular polypeptides were in the range of 35-75 kDa whereas membrane polypeptides were distributed in the range of 35-43 kDa. Minimum inhibitory concentration (MIC) of vancomycin for *P. acidilactici* was found to be 3.0 mg/ml. Vancomycin resistant *P. acidilactici* expressed higher level of polypeptides of 70-100 kDa which may be target of interaction studies. Since it is a facultative anaerobe, peptidoglycan hydrolase (PGH) studies in extracellular and intracellular fractions under anaerobic conditions were confirmed by zymographic and turbidometric method against *Staphylococcus albus, Lactobacillus collinoides, Lactobacillus paracasei and Bacillus cereus*. Intracellular PGH was comparable to 50 µg/ml of lysozyme at same substrate concentration. PGH activity suggests an alternative therapy to antibiotics and studies need to be extended to aerobic conditions. Extracellular Lys-Ala-4βNA hydrolysing enzyme was purified by ammonium sulphate fractionation (0-80%) and gel filtration chromatography. The enzyme optimally worked at pH 7.0 at 37° C. This enzyme preferably hydrolysed Lys-Ala-4βNA with Km of 60 µM. Enzyme inhibition by PMSF and DEPC suggest it to be a serine protease with involvement of histidine residues in enzyme catalysis. This enzyme is reported to regulate the cell cycle but its function is yet to be explored in microbes. All these studies are important from pharmaceutical point of view towards the development of *P. acidilactici* as probiotic.

jasbirdhanda@gmail.com