Letter to the Editor

THE HISTORY OF MYCOBACTERIUM LEPRAE THAI-53 STRAIN

The Thai-53 strain of Mycobacterium leprae has been widely utilised for many experiments as a type strain in leprosy research. However, the origin and history of the strain is not clearly understood by most researchers. This letter describes the history and some genomic characteristics of the Thai-53 strain.

The bacilli were obtained from a biopsy sample of an LL patient in Thailand on 25th February 1981, and sent to Dr. K. Kosaka at Osaka University, Osaka, Japan. The bacillary suspension was inoculated into BALB/c-nu/nu nude mice footpads on 3rd March 1981. Bacillary growth was seen approximately one year later and a second inoculation was conducted on 25th February 1982. A bacillary suspension prepared from nude mouse footpads of this generation was provided to Dr. M. Matsuoka at the Leprosy Research Center, Tokyo, Japan on 9th February 1983. The bacilli were serially passed at the Leprosy Research Center and a frozen seed lot was also preserved. Bacilli with less than 10 generations and grown in BALB/c-nu/nu mice are supplied for experiments. Footpads with grown bacilli were supplied to Dr. J. L. Krahenbuhl at Gillis W. Long Hansen’s Disease Center, Carville, Louisiana, USA in 1990 and bacilli are propagated at this institute for experiments in the USA.

Thai-53 strain is susceptible to dapsone, rifampicin, and Quinolones, as well as to clofazimine, minocycline, and clarithromycin (data not shown). The SNP type of this strain is type 1. The genome of the strain harbour three copies of a 6 bp tandem repeat in the rpoT gene, and 14 copies of the TTC repeat. Copy numbers of other VNTRs have been examined together with other strains.

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References