

## Tetsu Nakayama, M.D.

1925–1985



Dr. Tetsu Nakayama, Director of 1st Research Department, National Institute for Leprosy Research, Tokyo, Japan, died of stomach cancer in the evening of 9 September 1985. He was born in Kitakyushu-shi on 20 June 1925. In March 1949 he graduated from the Faculty of Medicine, Kyushu University, and began work in September 1950 in the Department of Bacteriology, National Institute of Health in Tokyo. He studied the classification of dysentery bacilli and established a method for a slide glass-agglutination test. This was recorded in *A Guide for Hygienic Examinations*, a book published by the Japanese Ministry of Health and Welfare in 1951. In 1955, he was transferred to the National Institute for Leprosy Research where he continued his studies on the microbiology of *Mycobacterium leprae* for 30 years until his death. He published 37 papers during this period, and his well-recognized works may be summarized as follows: He improved the method of counting acid-fast bacilli in lepromin, and he established the standardization of lepromin by this method. This work was recognized by the World Health Organization and used as a basis for an international lepromin reference center in the Institute. Another aspect of his life's

work was the *in vitro* cultivation of *M. leprae*. He challenged this difficult problem with an hypothesis that the bacilli would require a growth factor which might be produced by a symbiotic microorganism. He isolated a peculiar yeast-like organism from leprosy nodules and extracted the lipid substance from the mass culture of this organism. When inoculating *M. leprae* on the special solid medium consisting of chemically defined materials supplemented with the growth factor, he observed light-yellow, R-type micro-colonies after incubating at 35–36°C for seven days. The colony was composed of innumerable acid-fast bacilli which were morphologically indistinguishable from bacilli in the tissues. These findings were published in *Acta Leprologica* II (1984) 305–310. He intended to request the experts to identify the acid-fast bacillus by their own methods, but his desire has not been answered as yet because of his death.

Dr. Nakayama also participated in international cooperative studies and visited many countries (U.S.A., central Africa, Switzerland, and The Philippines). He also attended the International Leprosy Congresses held in Brazil, England, Norway, and Mexico. Although his life of 60 years was shorter than the average for Japanese males, he contributed to the world's health with his many excellent works, and he could enjoy his life in peace with his family. We pray for the repose of his soul.

—Masahide Abe