In memoriam: Yoshihiro Hayata (1924–2012)

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Dr. Yoshihiro Hayata (1924–2012) passed away in Tokyo on August 22, 2012.

Dr. Hayata was born in 1924 in Hiroshima. He graduated from Tokyo Medical College in 1944 and began to practice as a surgeon in the Department of Surgery of Tokyo Medical College in 1949. He became an instructor in 1960, an associate professor in 1963, and subsequently a professor of the Department of Surgery in 1969.

In 1965, Dr. Hayata performed a living lung transplantation with Professor Kingo Shinoi, the first time for such an achievement in Japan and only the third time in the world. At the time it was the era of the spread of tuberculosis, bronchiectasis, and lung abscess. Although lung cancer was not a significant disease, he adopted lung cancer for the focus of his study following Professor Shinoi.

Dr. Hayata was one of the pioneers of lung cancer research. This work included, clinically, the establishment of lung cancer screening by sputum cytology and chest X-ray, the development of the sputum pooling box, the fiberoptic bronchoscope, the TMC percutaneous needle for cytology, fluorescence bronchoscope, and bronchoscopic therapies such as YAG laser treatment and PDT (photodynamic therapy). These resulted in revolutionary progress in the diagnosis and treatment of lung cancer. PDT for early-stage central type lung cancer was particularly significant. In 1973 he established in vitro lung cancer cell lines, one of which is the widely used EGFR-mutation positive PC-9, and developed a canine lung cancer model, and in the mid-1970s a study of the carcinogenetic process of lung squamous cell carcinoma with the Karolinska Institute was completed. These developments were applied in oncology research, including molecular biology, genomics, proteomics, sensitivity of drugs, and development of drugs, by a number of researchers around the world.

Dr. Hayata contributed to the most important international society for lung cancer as the president of IASLC (International Association of Study for Lung Cancer) (1991–1994). During his active professorship (1969–1989), he conducted many major conferences including those of the Japan Society of Lung Cancer (1980), the Japanese Society of Clinical Cytology (1982, 1989), the Japan Society for Laser Surgery and Medicine (1987), the International Photodynamic Association (IPA) (1989), and the World Conference of Lung Cancer (WCLC) (2000).

Dr. Hayata loved mountain climbing, and beginning in 1958 he became involved in establishing and maintaining highlands clinics including a high-altitude institute in

Periche (4,250 m) near Mt. Everest in Nepal in 1978. He established the Hayata Foundation for the education and training in medicine for Nepalese doctors in Japan in 1982.

Prestigious prizes including the Nepalese decoration “Prasuddha Prabal Gorkha Baru” and the Japanese “Order of the Sacred Treasure, Gold Rays with Rosette” were awarded to Dr. Hayata in recognition of his work.

Dr. Yoshihiro Hayata worked at Tokyo Medical University for 20 years as Professor of Surgery. He contributed tremendously not only to the education of medical students but also to the development of medical science, particularly in lung cancer. His scientific attitude and warm personality attracted many young investigators.