

# NIH Record: Vol. LXVII, No. 20 September 25, 2015

[https://nihrecord.nih.gov/pdfs/2015/09252015\\_Record.pdf](https://nihrecord.nih.gov/pdfs/2015/09252015_Record.pdf)

## Li Mourned, Pioneer in Genetic Causes of Cancer



Dr. Frederick P. Li

Dr. Frederick P. Li, a pioneer in establishing genetic risk factors for cancer and long-time collaborator with the National Cancer Institute's Division of Cancer Epidemiology and Genetics (DCEG), died June 10 at his home in Brookline, Mass. As a young clinician, Li joined NCI's Epidemiology Branch (now DCEG) as a commissioned officer in the Public Health Service.

Li is perhaps best known for his contribution to the discovery of the cancer predisposition syndrome named for him and his collaborator, former DCEG director Dr. Joseph F. Fraumeni, Jr. The two identified what came to be known as Li-Fraumeni syndrome (LFS) from the study of a group of families with an unexpected constellation of tumors occurring at very young ages.

In 1990, using biological samples collected from those families, colleagues of Li and Fraumeni discovered that germline mutations in the TP53 tumor suppressor gene cause LFS. Li and Fraumeni's first description of LFS families had been published in 1969 in the *Annals of Internal Medicine*.

Reflecting on his first meeting with Li, Fraumeni recalled, "Fred was different from the many young physicians who were flocking to NIH at that time. His background in clinical medicine was matched by a passionate interest in public health. He seemed a natural for epidemiology and his intellectual curiosity and productivity were evident from the very start."

In recognition of their discovery of LFS and the identification of the gene responsible, Li and Fraumeni were awarded the Charles S. Mott General Motors Prize in 1995.

Among his many efforts at NCI, Li successfully mapped a gene in kidney cancer families, identifying a chromosomal translocation associated with elevated risk for the disease. He was instrumental in launching the study of cancer survivorship, leading efforts on risk for second malignancies after childhood cancer.

"Fred had a knack for making important clinical and epidemiological observations and taking them to the next level," said Fraumeni. "This often meant overcoming the considerable challenge of bringing together experts from multiple disciplines. [We] were drawn not only to the scientific ideas he generated, but also by his friendly, calm and thoughtful demeanor as well as his generosity of spirit."

In the late 1960s, Li helped found a free clinic in Boston's Chinatown, where he worked for years. "He was very concerned about social justice issues and felt it important to give back to those with fewer resources," said Dr. Margaret Tucker, another of Li's DCEG collaborators. "He was also involved in the early delegations to China, the opening up of U.S.-China relations and helped to develop their cancer research programs."

Later in his career at Dana-Farber Cancer Institute and Harvard, Li's focus extended to other hereditary cancer syndromes, the study of late effects of cancer and its treatment, preventive strategies in high-risk populations and, more recently, cancer control research in Asian-American and other minority populations.