In Memoriam

Dr. Patrick J. Fitzgerald, 1913–2004

An American Scholar

Patrick J. Fitzgerald, who died at his home in Sea Cliff, New York, on July 29, 2004, was an eminent pathologist, educator, author, and researcher. He was a pioneer in autoradiography, thyroid cancer, pancreatic regeneration, and exocrine pancreatic tumors. But above all he was a scholar in the best of the American scientific tradition.

Patrick J. Fitzgerald was born in August, 1913 in Haverhill, Massachusetts. In 1930 he rescued a man from the icy Merrimack River and received the Carnegie Hero Medal and a scholarship to Tufts Medical School, where he graduated in 1940. After internship at the Boston City Hospital and pathology residency at the Mallory Institute, he served in the United States Navy during World War II. He was then a fellow at Memorial Hospital for the Treatment of Cancer and Allied Diseases (later Memorial Sloan-Kettering Cancer Center; MSKCC) in New York.

During the 1940s and 1950s, Dr. Fitzgerald introduced tritium as a label for autoradiography. The high resolution afforded by tritium allowed autoradiography to be used by others for significant discoveries, such as the semi-conservative replication of DNA and protein synthesis and secretory pathways. Drs. Fitzgerald and Frank Foote demonstrated radioactive iodine uptake by follicular thyroid tumors, providing the basis for classifying nodules as “cold” and “hot” and for using radioactive treatment for thyroid cancer. With Dr. Benedict Duffy, he also predicted the relationship of irradiation to thyroid cancer in children.

In the 1950s and 1960s, while Chairman of Pathology at the State University of New York at Downstate Medical College in Brooklyn, Dr. Fitzgerald reported the regeneration capability of the pancreas in a long series of publications, largely in *The American Journal of Pathology*. His elegant studies on pancreatic embryogenesis were significant for pancreatic morphology, chemistry, and physiology.

Dr. Fitzgerald came to MSKCC as Chairman of Pathology in 1972, when that institution was evolving from primarily a clinical cancer treatment hospital to a more research-oriented institution. His experimental pathology background complemented the traditional morphological approach to guide the department in a more academic direction. Thus, he introduced a Genetic Division in the

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Figure reprinted from PJ Fitzgerald. *From Demons and Evil Spirits to Cancer Genes* (2000) with permission from Armed Forces Institute of Pathology/American Registry of Pathology, Washington DC.

department, predicting the importance of this field for cancer pathology.

While at MSKCC Dr. Fitzgerald's studies on the pathology of pancreatic tumors called attention to a neglected organ. With collaborators, he delineated the features of new variants of pancreatic carcinoma, the anatomy of peripancreatic lymph nodes, and the pathological features of intraductal precancerous lesions, now designated pancreatic intraepithelial neoplasia (PanIN). Dr. Fitzgerald's publications on the classification of pancre-

atic exocrine neoplasms are still cited today. His work on pancreatic neoplasia resulted in two books: *The Pancreas*, with Dr. Ashton Morrison in 1980, and the Second Series AFIP Fascicle on Tumors of the Exocrine Pancreas in 1984.

For Dr. Fitzgerald's many accomplishments he received the Gold-Headed Cane Award from the American Society for Investigative Pathology in 1985. In the publication announcing the award, Dr. Fitzgerald was described by Dr. H. Clarke Anderson as "not only an important American pathologist but also a truly outstanding scientist" who was able to overcome initial skepticism about his ideas to have a major impact on later investigators.

Dr. Fitzgerald also wrote many medical history articles that he called "medical anecdotes." After retiring from Memorial Hospital in 1980, he joined the pathology staff at the University of Kansas. After three years he returned to New York as a Visiting Professor of Pathology at Cornell, where he published *From Demons and Evil Spirits to Cancer Genes*, a history of basic cancer research. An indefatigable worker, he was writing his memoirs in a book to be entitled *The Education of a Medical Scientist*

when he died a week shy of his 91st birthday. As a leader, Dr. Fitzgerald was tolerant, with high ethical values and great respect for the work of colleagues. A man of critical vision, integrity, and courage, he was an American scholar who will be greatly missed.

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