



IN MEMORIAM

In Memoriam Henry T. Lynch (January 4th 1928 – June 2nd 2019)[☆]

In Memoriam Henry T. Lynch (4 Enero 1928- 2 Junio 2019)

Here at the *Asociación Española de Gastroenterología* [Spanish Association of Gastroenterology], we would like to make a special memorial following the recent passing of Dr Henry T. Lynch, a key figure who has marked the study of hereditary cancer in recent decades.

He was born in Lawrence (Massachusetts) and grew up in New York. Particular key points in his life that we would like to highlight are that he joined the army during the Second World War (giving a false age) and that after the war he was a professional boxer. All of this reflected his personality.

He obtained his PhD in Human Genetics from the University of Texas at Austin and received his physician certification from the University of Texas Medical Branch in 1960. He completed his residency in Internal Medicine at the University of Nebraska.

The figure of Henry T. Lynch has been essential in the study of hereditary cancer and in explaining the correlation between clinical and basic research. He can be considered to be the true father of the modern concept of hereditary cancer. The history of Lynch syndrome, which bears his name, was first discovered some time before him.

The first description of a family affected by what we began to know over the years as Lynch syndrome was given by the pathologist A.S. Warthin at the University of Michigan in 1913. He described a family of 10 siblings (of German origin) of whom two had uterine cancer, two had stomach cancer and a fifth had a progressive gastrointestinal tumour. The children of those affected also developed multiple cancers under the age of 40.

In the 1960s, Dr Lynch resumed the following of the family described by Warthin and led a detailed study into it collecting data from 650 members of the family (called family G)

and published the data coining the term “Family Cancer Syndrome” with a pattern of autosomal dominant inheritance, early ages and colon, stomach and uterus lesions. The breakthrough was huge, in a time in which the hereditary component of cancer was not recognised, and it was attributed solely to environmental factors. In fact, at that time he had requested several research grants requested which had been denied. However, he persevered.

In two articles in 1973, Dr Richard Boland reported two additional families compatible with what was described by Dr Henry T. Lynch. The term Lynch syndrome was thus coined (not generated by Lynch himself but by other researchers), and was differentiated into two subtypes: Type I only with colorectal cancer and Type II also involves extracolonic lesions.

Progress during those years was still slow, as no genetic cause associated with the clinical picture had been discovered. In 1985, Dr Lynch proposed the term hereditary nonpolyposis colorectal cancer to describe the condition and differentiate it from familial adenomatous polyposis.

In 1990, Dr Lynch played a key role in the formation of the “International Collaborative Group on Hereditary Non-polyposis Colorectal Cancer”, an international consortium aiming to advance the molecular knowledge of Lynch syndrome. The Amsterdam criteria were created for the clinical diagnosis of this condition. From that point on, the molecular advances were fast-paced. In 1990, Vogelstein described the carcinogenesis of colorectal cancer as a multi-step process, with sequential inactivation of tumour-suppressor genes and activation of proto-oncogenes. In 1993, the association of clinical Lynch syndrome with microsatellite instability was discovered. Also in 1993, the first descriptions were made of germline mutations in DNA repair pathways in an outstanding career, allowing us to arrive at the current situation in which molecular diagnosis of the disease is possible.

[☆] Please cite this article as: Reyes Moreno J. In Memoriam Henry T. Lynch (4 Enero 1928- 2 Junio 2019). *Gastroenterol Hepatol*. 2019. <https://doi.org/10.1016/j.gastrohep.2019.10.001>

We believe that he was a great figure who deserves all of our recognition for several reasons. He was able to detect a problem of enormous clinical relevance simply through observational data, so that by analysing family histories he deduced the existence of a genetic predisposition and maintained this position even against the generalised medical opinion of the time. Perhaps this point is the main one: it requires tremendous mental strength and trust in your own work. He was then capable of coordinating clinical and basic research teams around him that made it possible to make progress in the study of the disease and in which he always tried not to play an essentially central or highly important role. In other words, he was also an example of how to develop teamwork among clinical and basic researchers (a major innovation for his time).

He was able to do all this successfully and all physicians that now have any type of connection with cancer are aware

of the monumental path that he opened up to us and of the great debt that we owe to him. There are countless families, people and professionals all over the world who owe him gratitude for his immense effort and perseverance. A truly titanic work.

A real example for all professionals and for all those who carry out research tasks.

Jose Reyes Moreno

Miembro Asociación Española de Gastroenterología. Jefe de Sección de Aparato Digestivo. Hospital Comarcal de Inca- Mallorca. Profesor Asociado Facultad de Medicina.

Universitat de les Illes Balears

E-mail address: jose.reyes@hcin.es