

Etienne Y. Lasfargues

Biographical sketch by Amos Bairoch/ November 2017



Etienne Yves Lasfargues was born in 1916 in Milhars, a village in the South of France. His family moved to Paris where he did all of his schooling. After graduating from high school in 1936 he successfully applied to study at French National veterinary school of Maisons-Alfort. As a lieutenant in the French cavalry he was made a prisoner of war in 1940. The German camp commander, himself a veterinarian, interceded in his favor and obtained his early release so that he could resume his studies. In 1942 he received a doctorate of veterinary medicine from the University of Paris.

Because he became passionate about cell biology and virology, he never practiced as a veterinarian and embarked into a successful career oriented toward human medical research. He first worked at the Pasteur Institute in Paris pioneering tissue culture techniques. This work earned him an American Cancer Society post-doctoral fellowship at the Institute for Cancer Research in Philadelphia where he worked from 1947 to 1950 and where he met his future wife Jennie DiFine, who also shared his passion for science. After this post-doctoral stint he returned in France, at Garches, an annex of the Pasteur Institute, where he headed the cell culture laboratory. In 1955 he accepted an associate professor position in the department of Microbiology at New York Columbia University. In 1966 he moved to the Coriell Institute for Medical Research in Camden where he stayed until his retirement in 1981. He died in Moorestown, New Jersey, in 2013 at the age of 97.

His first cell biology paper, in 1956 ([PMID:13294127](#)) dealt with the influence of human umbilical cord extracts on the growth of chicken fibroblasts. But he rapidly started to work on mouse mammary tumor and human breast cancer cells. In a seminal paper in 1958 ([PMID:13611537](#)) he reports that the “continuous cultivation of human breast carcinoma cells was achieved for the first time” and describes a cell culture which he named BT 20. [BT-20](#), as it became known, is a triple negative breast adenocarcinoma cell line which has been used in thousands of studies worldwide. In 1978 ([PMID:212572](#)) Lasfargues also described the establishment of two other well-known breast carcinoma cell lines: [BT-474](#) and [BT-483](#). A fourth famous breast cancer cell line, [BT-549](#), was also established in his laboratory in 1978 and submitted to ATCC for distribution but which was never fully described in a publication.

Quite a number of his 130 publications dealt with his major research theme, the study of mouse mammary tumor viruses and the quest of an elusive human

counterpart. In the context of such endeavor, William Coutinho, a member of Lasfargues group established ([PMID: 213889](#)) the mouse mammary epithelial cell line [C57MG](#) which is widely used nowadays to study Wnt signaling.

Lasfargues seems to have been quite modest. In a short note he wrote in the context of his membership in the American Association of Cancer Research (AACR) he said:

“There is not really much to say about my career in Cancer Research. Its high point came in 1958 when I joined the Microbiology Department of Columbia University Medical School. Our project was to study the mammary tumors that developed in mice following their infection with the “Bittner virus”. The rationale was that if a virus is really responsible for mouse mammary tumors, then a comparable etiology might be expected for human breast cancer. All that remained to do was therefore to grow human tumor cells in vitro, isolate the hypothetical virus and make a “vaccine” according to the current procedures of biological sciences.”

“The next disappointment came from the complete absence of a budding virus. On the assumption that a virus might disappear after infecting a cell, hundreds of human breast tumors supplied by two local hospitals were set in culture. Several cell lines resulted from that effort. The first one ever obtained was BT20 followed by several others that are now available for research. However, no budding virus comparable to that of the mouse was found. This was a bitter disappointment after years of hard work and hopes.”

Sources

http://www.aacr.org/Membership/Shared%20Documents/Lasfargues_Etienne_1E37B9.pdf
<https://milhars.files.wordpress.com/2015/01/lasfargues.pdf>
<http://www.legacy.com/obituaries/courierpostonline/obituary.aspx?pid=165316667>
<http://prabook.com/web/person-view.html?profileId=1694713>

Cell lines established by Etienne Lasfargues and his group

BT-20 (CVCL_0178)	BT-410 (CVCL_X209)	BT-474 (CVCL_0179)
BT-483 (CVCL_2319)	BT-549 (CVCL_1092)	C57MG (CVCL_6824)