

Obituary

CHARLES OBERLING

1895–1960

Charles Oberling passed away March 11, struck by the enemy he had fought all his life. The Institute for Cancer Research at Villejuif has lost its great director; France, one of her dominating figures in Medical Science. His friends are mourning an extraordinary man whom they loved. He was so much alive, it is still difficult to believe that he is no more. It seems, world traveler that he was, that he could as well be absent for awhile in some distant place, soon to return and recount his adventures and discoveries, as he always did.

Charles Oberling was born in Metz (Lorraine) in 1895, the son of an humble postman. Soon afterwards, the family moved to Strasbourg, and it is there that Charles attended school, started his University career and founded his family. He had two sons, Jean-Jacques and Pierre. He was deeply rooted in Alsace, and throughout his life he showed great affection for this Province with its blue Vosges Mountains, with its lovely old villages surrounded by vineyards, and with the gothic cathedral of its capital on the Rhine. The tragic history of his country dramatically affected his own life. Mobilized while a young student in 1914, he was in the battles of Champagne and Flanders, was twice wounded and miraculously escaped death. While recovering in Strasbourg he continued his studies and presented his thesis in Medicine in 1920 on "Metaplasia and heteromorphous carcinoma," a subject which already announced his future career.

His interest in the problem of cancer was tremendously stimulated by his teacher, Pierre Masson, who was at that time director of the Institute for Pathology in Strasbourg. Under his master's direction Oberling received his fundamental training in the precise and sober description of complex morphological phenomena which later allowed him to become, himself, a master in the diagnosis of tumors. But Masson was also a biologist and taught his students never to forget the intimate relationship between structure and function. Thus, Charles Oberling received the foundation of his broad education in medicine and biology during the 8 years he spent in Masson's

Institute. He was influenced, moreover, by another outstanding figure whom he met at that time, Borrel, the founder of the "Virus Theory of Cancer." This former collaborator of Metchnikoff at the Pasteur Institute in Paris proposed as early as 1903 that cancer is caused by viruses. Borrel probably was a genius, but the faith with which he professed his ideas shocked many of his colleagues, because the scientific facts upon which he based his theory were not convincing. Therefore, Borrel was not taken very seriously, and Oberling himself, although impressed by Borrel's independent and original thinking, remained skeptical for a long time.

In 1928 Charles Oberling became Associate Professor of Pathology at the Faculty of Medicine in Paris. He met there his third teacher who played a decisive role in his life, Gustave Roussy, who was just building a cancer hospital and cancer research center at Villejuif, a suburb of Paris. Roussy was seeking a young scientist to build up a research team, and his first contacts with his new associate convinced him that he had found the ideal person for the task. In 1930 Oberling began his experimental work in collaboration with Maurice Guérin. Their early research dealt with, among other things, the isolation of various strains of tumors, the mechanism of formation of metastases and a study of fowl erythroblastosis. The latter filtrable leukemia of the chicken fascinated him more and more and definitely oriented his work toward virus tumors. When in 1937 he was selected to succeed Borrel in the chair of Microbiology and Hygiene in Strasbourg he accepted immediately, because in his eyes this was a unique opportunity to attack the problem of viral origin of cancer, together with some of Borrel's former collaborators, and to put it on a more scientific basis. But he had scarcely had the time to reorganize the laboratories and to form a research team when war broke out. Since Strasbourg was immediately evacuated, he had to abandon all that he had built up.

After several months in the Army, he accepted a scientific mission in Iran and left France in

December, 1939, for Teheran. This was the beginning of the most adventurous and exciting period of his life. His Majesty the Shah of Persia personally named him to reorganize the medicine of his country. What a tremendous challenge for a man whose career was hitherto exclusively devoted to laboratory work! As a Dean of the Faculty of Medicine of Teheran he established an entirely new form of medical education, transformed pre-existing hospitals into University Medical Centers, named experienced specialists as professors, built new hospitals and a nursery school, and founded four new medical schools in Mehed, Chiraz, Ispahan, and Tauris.

After 2 years of tireless activity, he accepted an invitation to the United States, went to New York, but was soon called back to Iran. A first serious heart attack interrupted his trip. Back in New York, he tried to enlist in the American Army but was rejected because of his heart condition, and he settled with his family at Cooperstown, where he accepted the position of pathologist. During this time he had frequent contacts with Peyton Rous, Duran-Reynals, Shope, Claude, Murphy, and many other outstanding scientists. His ideas about the viral origin of cancer were becoming more precise and dominated his thoughts. He left this country in 1943 with a convoy, constantly menaced by submarines, crossed the South Atlantic, and after numerous adventures reached Iran. There, he resumed the work of a great organizer, crossing the country many times by plane or jeep, inspecting the medical schools and hospitals in all its provinces, studying its geography, history, language, and people. He later delighted his friends with tales of his adventures during these 4 years.

Two years after the war he was called back to Paris, where he succeeded Gustave Roussy as the director of the Villejuif institute in 1948. He was also offered a chair for Cancer Research by the Faculty of Medicine in 1949. At first all his activity was devoted to the reorganization of his institute, which was very poorly equipped at that time. He formed a team of young scientists and organized the research, communicating his enthusiasm and many of his ideas to his associates. The virus tumors were the main subjects of his studies, but there was no field of cancer research which did not interest him. He paid particular attention to electron microscopy as a new tool for exploring normal and cancer cells and was among the first to apply it to the study of virus-infected material. He traveled extensively in North America and Europe, lecturing in universities, visiting laboratories, and participating at meet-

ings. With his growing authority he received many honors but also had to accept new duties at a time when his health was failing. He was Doctor *honoris causa* of the Universities of Quebec, Geneva, and Brussels, and a member of the French Academie de Médecine. In 1956 he succeeded Lacassagne in the Chair of Experimental Medicine at the Collège de France and during the following 3 years he gave a series of most brilliant and stimulating lectures on selected problems of cancer research.

The last years of his life were difficult ones. Repeated heart attacks and a serious accident had broken his once exceptional physical strength and hindered him more and more in his daily work, which had formerly started in early morning and continued well past midnight. The more his health became impaired, the more he tried to do, heroically ignoring his illness. Just before he became forced to remain in bed, he flew by jet to New York to honor Peyton Rous and to visit once more his many American friends, to whom he owed so much, and the country which he so admired. After his return he was a shadow of himself, but he continued working until the last days, writing reports and articles and receiving his collaborators to discuss problems of the future. The evening after the surgical intervention which revealed a widely distributed malignancy, he admired the unusual colors of a magnificent sunset over the greening spring gardens of Neuilly and died after a peaceful night.

Charles Oberling's scientific work is considerable. He was first of all a *pathologist* whose main interest throughout his scientific life was *cancer*. But many of his earlier publications deal with various other subjects, among which we must mention the *pathology of the kidney*. His first description of "ascending nephritis" and its role in the pathogenesis of Bright's disease has become a classic paper. He was the first to describe, in 1927, the "preglomerular apparatus," formed by specialized cells in the afferent arterioles, and to suggest a relationship between this structure and hypertension. In the early days of electron microscopy, simultaneously with Pease, he drew attention to the podocytes with their intricate ramifications covering the glomerular capillaries. Other papers are concerned with the pathology of the *reticulo-endothelial system*. These include Gaucher's, Schüller-Christian's, and Niemann-Pick's diseases and various malignant reticulososes, the first complete classification of which he made with M. Guérin. A very important part of his work was done on the *tumors of the central nervous system*. He investigated mainly meningeal tumors, gliomas,

angiomas, neuro-spongiomas, tumors of the pituitary gland and of the optical nerve, and published in 1931 with G. Roussy an admirable atlas on "Tumeurs des centres nerveux et nerfs périphériques." This study brought him in contact with many outstanding neurologists and neurosurgeons, among which are Harvey Cushing, Clovis Vincent, and Moniz. With M. Guérin he wrote a monograph on the *tumors of pancreas*, and re-edited the classical "Précis d'Anatomie pathologique" by Roussy, Leroux, and Oberling, which is used by all French-speaking medical students.

Another great chapter in Charles Oberling's life deals with *experimental cancer research*, carried out chiefly in collaboration with M. Guérin. Among their studies of chemical carcinogenesis one in particular should be mentioned: the discovery of the carcinogenic activity of Thorotrast, a compound which was employed frequently by radiologists at that time. His main interest, however, concerned the *filtrable fowl leukoses*. He was the first to discover that the virus of erythroblastosis may induce a great variety of malignant tumors and thus demonstrated, what seems obvious today, that leukemias belong to the group of neoplastic diseases. After the war he guided the research on various other filtrable tumors which was undertaken by his collaborators, and he became particularly interested in the ultrastructure of tumor cells and tumor viruses.

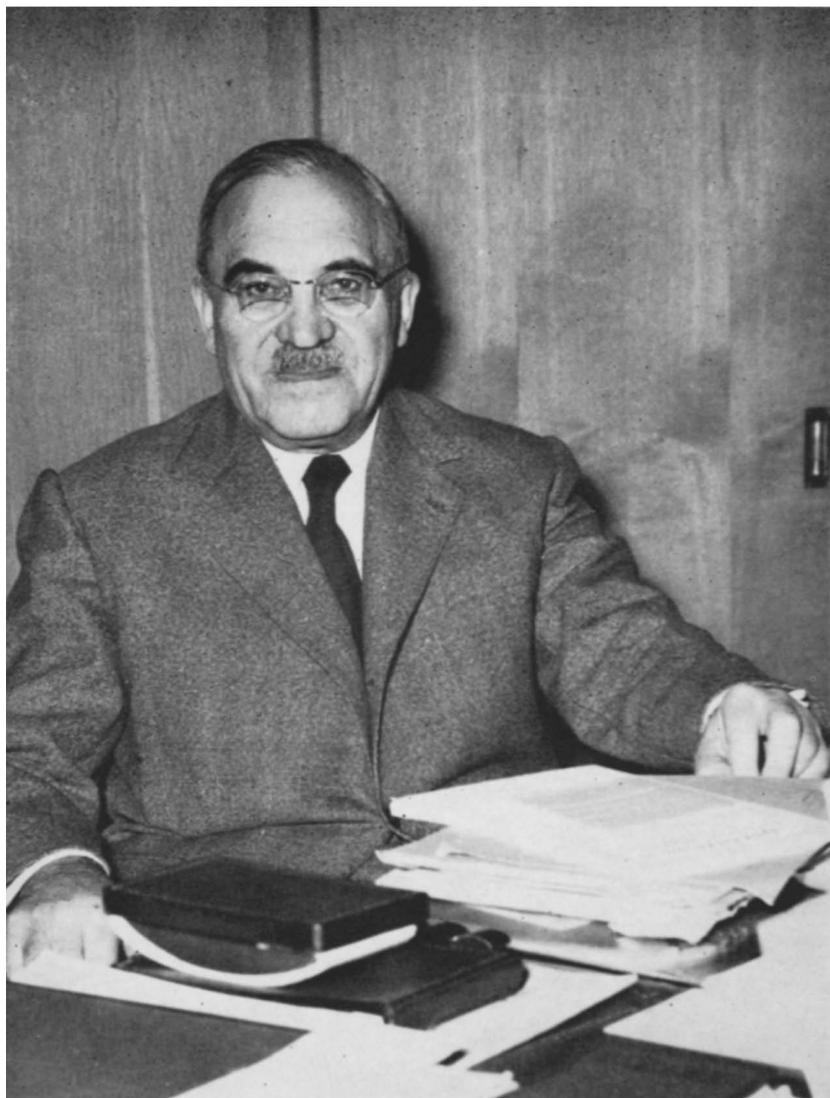
In his later years Oberling became preoccupied with the formulation of the virus theory of cancer and its propagation in his writings and conferences. He had the courage to defend, practically alone in Europe, a hypothesis which was until recently very unpopular, particularly among European scientists. His book, *Le Problème du Cancer*, first published in Montreal in 1943 and exceptionally well translated by Woglom as "The Riddle of Cancer," is an admirable summary of

the current problems of cancer research. The most complex subjects are presented in a clear, fluent language, and many scientists and students have read it almost like a novel and were inspired by it. Oberling was an enthusiastic teacher, and this may explain the success of his book. In his preface he hopes that "the difficulties cancer research still has to face should give the same sensation as the stories of a dangerous excursion in the mountains: the nostalgia of the peaks and the ardent desire for their conquest." After having explored with much objectivity the main theories on the origin of cancer, he vigorously defended the virus theory. And "to those who may be inclined to reproach the author for a too enthusiastic partisanship," he would reply that "it is never ill-judged to be guided by a hypothesis so long as it does no violence to the known facts, and the best proof of value is the amount of research stimulated. Submitted to these tests, the virus hypothesis has nothing to fear."

Charles Oberling remains alive in his work, in which a careful reader can discover many sides of this unusual personality. He was a brilliant observer and a savant with manifold interests. Inseparable from the scientist was the man, the fighter, the teacher, the thinker. He loved life and savored the beauty of this Earth. He could be vehement, but he was also sensitive, generous, and full of kindness. He was fascinated by the mystery of life and was seeking the harmony of nature. The pillars of a Greek temple, a Beethoven sonata, the mighty crown of a tree, or the snowy peak of a mountain—all inspired his imagination and made him feel deeply indebted to creation.

Those who knew him shall forever remember.

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CHARLES OBERLING

Cancer Research

The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

Charles Oberling 1895–1960

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