

Gustave Roussy

(1874–1948)

“... à la France, pays de mes ancêtres ou je suis revenu, j’ai donné tout ce que j’avais de force ...” (1948)^{558c}

Gustave Samuel Roussy was born on 24 November 1874 at Gilamont in the commune of Saint Legier, near Vevey (Vaud), Switzerland. He was the son of Caroline Gabrielle Aguet (1850–1924), who in 1868 had married Emile Louis Roussy (1842–1920). The child was baptized by Pastor Archinard in May 1875 at the Protestant church of the community of Corsier, near Vevey. Gustave had an older brother, Auguste Emile (1870–1940), and a sister Marie Elise (1869–). He had a younger sister, Marguerite Adeline (1876–). On their mother’s side, they were the grandchildren of Jean Paul Gabriel Aguet and Marie Louise Monnerat of Lutry, near Lausanne; and on their father’s side of Pierre Samuel Roussy (1813–1879) and Anne Marie Genillard (1817–1884) of Gesseney, near Berne. His paternal great-grandparents were Johanna Franziska Pilliod of Vevey, who in 1811 married Samuel Louis Roussy (1789–) and had five children besides Pierre Samuel. His paternal great-grandparents were Jeanne Françoise Maquelin, who in 1788 married David Louis Roussy (1765–1818), of Vevey, and had two other children in addition to Samuel Louis. On both sides, Jeanne and David were descendants of French citizens of Cevennes who left the country of their birth after the revocation of the Edict of Nantes in 1685 (subject note 13.1).

Young Gustave had his elementary schooling in Vevey. In 1892 he registered as a probational *externe* at the Gymnase Classique (now Gymnase de la Cité) of Lausanne. He did best in philosophy and cosmology, and had low passing grades in mathematics, physics, chemistry, and natural history (biology). He did not take German, Latin, or Greek and did most poorly in French. In view of his low performance, he was not eligible to continue as a regular student and

did not take the end-of-the-year examinations in 1893. Nevertheless, two years later, he must have obtained his baccalaureate from some other institution of which we have no record, for his credentials were sufficient to be admitted at a university.

In 1895 Roussy registered to study medicine at the University of Geneva and, after three semesters, transferred to the University of Paris in 1897. In 1899, as a medical student, he successfully passed the extracurricular examination to become an *externe* of the hospitals of Paris. His daily obligations as a medical clerk under capable guidance gave him extraordinary clinical opportunities and experience. Two years later, as he was about to complete the medical school’s requirements, he passed the highly competitive and elaborate examinations (written, oral, practical) to become one of the limited number who annually were admitted as *Internes des Hôpitaux*, a title only a few conquered. This achievement entitled him to twelve semesters of training in the specialties and under patrons of his choice.

Two of the mentors who guided Roussy’s steps in clinical and experimental medicine were also of Swiss origin: Jean Darier (1850–1938), a famous dermatologist; and Joseph Jules Dejerine (1849–1917), a brilliant neuropsychiatrist in charge of Charcot’s old service at La Salpêtrière. In addition a notable internist, Pierre Marie (1853–1940), awoke the young intern’s interest in aphasia and acromegaly, suggested the subject of his doctoral thesis, and carefully steered him on the academic path. Under such masters, Roussy completed his six years of post-curricular training with the title of *Lauréat des Hôpitaux* and the Silver Medal of the Internat. He then opted for French citizenship which, after his dissertation,



Fig. 13-1. Albert LeBrun, President of France, and Gustave Roussy at the inaugural ceremonies of the hospital and laboratory buildings at the Cancer Institute (1934).

entitled him to the Diplôme d'Etat and the right to practice medicine in France.

During his years as an *interne* (resident) from 1901 to 1907, Roussy wrote thirty-six papers, mostly clinical discussions of cases. Reflecting Dejerine's influence, twenty-one of these were on subjects of neurology. One of these publications, in co-authorship with Darier, was on the subject of subcutaneous sarcomas, and another in collaboration with Pierre Marie was on cholesteatoma.^{430,130}

In 1907 Roussy presented his 387-page doctoral thesis and successfully defended it before a tribunal of professors of the Faculty of Medicine. The subject was a study of the thalamic syndrome, an ephemeral hemiplegia with marked paresthesias and intense pain (first observed by Dejerine and now referred to as the Dejerine-Roussy syndrome).¹³³ The work was a detailed study of the anatomy, physiology, and experimental pathology of the "optic layer" (*couche optique, sehnhugel*), the substratum of the syndrome. As cus-

tomary, the thesis was dedicated to his mentors at the Faculty of Medicine of Paris, but Roussy included Professors Eternost, Raskouski, and Prevost of Geneva.⁵⁴²

Now a full-fledged physician with a promising future, Dr. Roussy married young Marguerite Laure Henriette Thomson (1884–1967), who was ten years his junior. She was the daughter of Henriette Matilde Elmire Peigné and Gaston Arnold Thomson, a former French cabinet minister. The wedding took place in fashionable Neuilly on 9 February 1907. His sister, Marie Elise, had married in 1889 to become Mme. Samuel Kezer. Sister Marguerite also had married in 1897 to become Mme. Victor Charles Emile Mercier.

On completion of his medical training, Roussy was offered a position by the Collège de France, an academic institution always in search of investigative talent. He was appointed *Chef de Travaux* in physiology and physiopathology under Professor Charles Emile François Frank (1849–1921), a dedicated student of the autonomous nervous system and its functions. Two years later, in 1908, Roussy was called to step onto the first rung of the hierarchy of the medical school as *Preparateur* of pathological anatomy. Within a year, he was promoted to *Chef de Travaux Pratiques*.

Attempting to orient himself in the disciplines of morbid anatomy, Roussy visited the principal institutes of pathology in Germany and made a report to the Academy of Medicine of Paris.⁵⁴³ For this work he received the Prix Lallemand in 1909. Soon recognized as a young leader in the field, he was chosen by the Faculty of Medicine to become *Professeur Agrégé* of Pathological Anatomy of the University of Paris in 1910.

While maintaining a genuine interest in neurology, Roussy's publications reveal a shift to morbid anatomy.^{547,557} In collaboration with his friend Jean L'Hermitte (1877–1959), he published a 233-page volume on anatomopathologic techniques for the nervous system.^{558b} In co-authorship with Jean Carrus (1872–1924) he made several publications on the effects of experimental hypophysectomies.⁹⁵ With Jean Pierre Edward Clunet (1878–1917) he did clinico-pathologic studies in cases of myxedema.⁵⁵⁷ For the time, his interest in tumors was confined to those within the calvaria.^{544,545}

As professor of pathology, Roussy had no entry into the corps of *Médecins des Hôpitaux*, reserved for physicians in charge of the care of patients in the various clinical specialties. In 1913 the Department of the Seine created the Hospice Paul Brousse in the Parisian suburb of Villejuif. Roussy was appointed director of this charitable institution, an appointment compatible with his academic obligations. The hospice's inmates for whom he became responsible

stimulated his interest in geriatrics and were to lead him to face the problems of cancer of the elderly. However, as he was starting to organize the proper attention and care of the inmates, the first World War issued a more immediate imperative.

Roussy served in the Army of the Lorraine and became chief of the neuropsychiatry center of the 10th Army.⁵⁴⁸ Later, he also headed the neurological center of the 7th Region at Besançon. During the war, he published 70 articles, mostly on the neurological consequences of war injury, often in co-authorship with various clinical colleagues.⁵⁴⁹ With L'Hermitte, he published a 187-page book on war psychoneuroses.^{557b} With J. Bertrand, he published a 224-page handbook on laboratory anatomopathologic techniques for medical students.⁵⁵⁵

The war over, Roussy resumed his duties as director of the hospice, which became a base for more important achievements. He segregated his elderly wards according to the dominant feature of their pathologic tally. Thus, he came to recognize that patients with cancer, not always incurable, required treatments and facilities for which the hospice was not equipped. He was aware of official indifference to the needs of cancer patients and recognized that progress could not be expected without enlisting public support. He initiated his public relations efforts with an address to the Union des Femmes de France to move their attention to what he called a true social flaw and to focus their powerful latent energies on the demand for diagnostic and treatment facilities.

The Association Française pour l'Etude du Cancer was founded in 1908, and Roussy was one of its earliest members. He presented a paper on cholesteatomas that was published in the bulletin of the association.⁵⁴⁵ For some time, his interest remained in the neurological area, but he made a study of peritheliomas with Jules Louis Marie Pierre Ameuille (1880–1947) and one with M. Wolf on cancer of lower animals.^{554,558c} In 1922, his twenty-two papers were on the subject of tumors, including a statistical report on cancer in the elderly. That year he was elected secretary of the French Association, a position he kept for fourteen years. With serene gravity, but always affable and courteous, he participated in the discussions of papers presented on a variety of subjects.

Roussy's father died in Geneva in 1920 (subject note 13.2). His mother died on 19 March 1924 in her residence near Thonon-les-Bains in Haute Savoie, France.

Roussy's efforts were finally given the necessary financial support, and he was able to create as a specialized adjunct to the hospice the Centre Anticancereux de la Banlieue Parisienne. Originally confined to diagnosis and triage, using facilities and beds

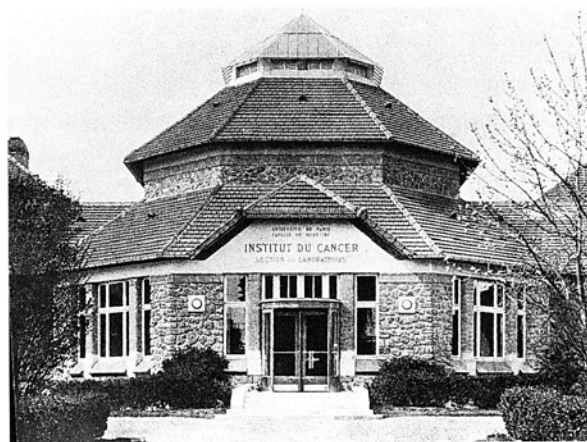


Fig. 13-2. Original laboratory building of the Cancer Institute at Villejuif. (Courtesy of Francine Courtial, Paris.)

from the hospice, this center was the embryo which, with Roussy's leadership and boundless enthusiasm, was to develop much further. In 1925 the Faculty of Medicine promoted him to full professor of pathologic anatomy. At the same time, the Conseil Général de la Seine granted funds for the construction of a categorical cancer institution, which was to be recognized as a *utilité publique*.

Perhaps due to his clinical and experimental experience, it is to Roussy's credit that although a pathologist himself, he insisted cancer should be investigated in other ways than histologically, and should be integrated into the framework of biological medicine. Our predecessors, he wrote, reasoned as pure morphologists, attempting to identify *retrospectively* the cell of origin of various tumors. We must, he insisted with positivistic ardor, study them *prospectively*, in the light of all aspects of biological research. With Cartesian methodology ("moins par tendance intuitive que par conviction déjà raisonnée"), he sought to utilize not only the structural but also the histochemical and physiopathologic evidence. He made attempts to predict radiosensitivity, and hence radiocurability, by scrutinizing the effects of irradiation on tumor cells and stroma. Depending on our findings, he said, it might be best to recommend surgery, radiotherapy, or perhaps tomorrow, chemotherapy for the treatment of tumors.³³⁸

The third International Congress of Radiology was held at the Sorbonne in the summer of 1931. Roussy was chosen to be one of the members of the Comité d'Honneur. In 1934 the hospital and laboratory sections of the Institut National du Cancer of Villejuif were formally inaugurated by President Albert Lebrun (Fig. 13-1). During the next decades, this institution was to develop into one of the richest and

most sophisticated cancer research centers in the world (Fig. 13-2).

A great deal of the growth and success of the Cancer Institute were due to the carefully chosen collaborators who joined Roussy, adopted his plans, and enthusiastically worked to achieve his goals: Roger Leroux (1892–1950),^B a charismatic educator, made the learning of pathology an exciting experience for the students; Charles Oberling (1895–1960),^B an inspiring lecturer and original investigator, took charge of the research laboratories; Simone Laborde (1883–1976),^B a skillful pioneer radiumtherapist and dedicated teacher, assumed responsibility for brachytherapy; René Huguenin (1894–1955),^B a fine internist, took charge of the medical care of the cancer patients. With Leroux and Oberling, Roussy co-authored the two volume *Précis d'Anatomie Pathologique*, a most valuable guide for medical students.^{556b} With Leroux he also produced a handbook of histopathology of tumors.^{555b} With Laborde and Leroux, he sought to analyze the effects of radiations on tumors and to evaluate the role of length of irradiation.⁵⁵⁸

In the 1930's, the Fondation Curie, in the heart of the city of Paris, was the mecca of radiophysiology and radiotherapy. From all parts of the world, visitors went there in search of guidance. The dedicated workers of the institution offered cordial hospitality with courteous reserve. To the Institut du Cancer, in the southern suburb of Villejuif, went visitors interested in the establishment of cancer centers as well as those interested in broader aspects of the fight against cancer: lay education and experimental research. At Villejuif they were openly received and escorted, often by Roussy himself or by one of his senior associates, with a pragmatic view to public relations.

It was the policy of the Cancer Institute to talk frankly about cancer, without semantic camouflage or mysticism. To promote public understanding and to counteract a sense of shame of the disease, euphemisms were to be avoided. Roussy and his associates became widely recognized as champions of this frank approach.

A slender man of medium height, Roussy had a swarthy complexion, thinning hair, a close-cropped mustache, and a graying van Dyke beard (Fig. 13-3). His stern look, apparent coolness, and customarily detached manner were enlivened by conversation. He had a genuine internal warmth, generous ardor, and inexhaustible kindness. An indefatigable worker, he was also very demanding of others, though always ready to help. A compassionate physician who could put his patients at ease, he often surprised his associates by incursions into the hospital wards, taking a moment to reassure a patient or to dispel apprehensions.

Raised and educated in a Calvinist ambiance, Roussy became an agnostic, but did not dispute the validity of the religious beliefs of others.^{558c} His views were rather like echoes of French positivism. Conservative in demeanor, he was a friend of civic causes, of movements of independence, and a defender of freedom of thought. Professor and Madame Roussy received his associates and students with traditional courtesy, warmth, and elegant simplicity at their home in the Avenue de New York. Without fanfare they contributed generously from their own fortune to the Institute, donating some twenty million dollars between 1921 and 1934, according to Maurice Tubiana's personal communication (April 1988).

In 1933 Roussy was elected dean of the Faculty of Medicine of Paris. His quiet and steady improvements in the administration and programs of the school were to be recognized later.³³⁹ He undertook to enlarge and rejuvenate the undergraduate studies of medicine. He was also elected a member of the Academy of Medicine. In 1934, on the occasion of its 375th anniversary, the University of Geneva jointly bestowed degrees of Doctor of Medicine *Honoris Causa* upon Professor Claudius Regaud and Gustave Roussy. On that occasion, Roussy paid a respectful visit to the monument of the Reformation with four figures carved on its wall: Jean Calvin (1509–1564), Guillaume Farel (1489–1565), Theodore Beze (1516–1605), and John Knox (1505–1572).⁸⁵

In October 1937, the Ministry of Education appointed Roussy to the high position of rector of the University of Paris with offices in the Sorbonne. He was the first physician to be called to such position of leadership. As rector, he was expected to respond to the intellectual tone and cultural tastes of the society, while offering sound goals for popular aspirations. In 1939 Roussy was elected a member of the French Academy of Sciences. That year he also published a 224-page book, *Le Cancer*.⁵⁵⁴ Modestly addressed to the laity, the book was a useful *vade mecum* for general medical practitioners and students. Starting with a recounting of false concepts of past ages and current popular misconceptions with respect to cancer, the book discussed notions of pathology, clinical and general indications for treatment, and avenues of future research.

At the height of his career of achievement, the second World War disrupted Roussy's activities. He was faced with the military mobilization of professors and students. The University of Paris, said Roussy, will remain devoted to France in 1939 as in 1914, faithful to its traditions of generosity, liberalism, and tolerance, while remaining sensitive to the nation's pains as well as its joys, looking forward to a victory without taste for lucre or appetite for conquest. He added: "... au pays de Descartes, la raison nationale



A handwritten signature in dark ink. The signature is cursive and stylized, starting with a large, looping 'G' and ending with a flourish. It appears to read 'G. Roussy'.

Fig. 13-3. Gustave Roussy, Rector of the University of Paris (1937). (Courtesy of François Schwege, Paris.)

se confond toujours avec la raison humaine.” Within months came the occupation of the city by foreign troops, and on 14 June 1940 a huge swastika was flown over the Arch of Triumph. The exodus increased, but Roussy deliberately decided to remain in his position. His elder brother, Auguste Emile, a former high officer of Nestlé, who lived in Paris at the time of the occupation, died in Eyzie de Tayac (Dordogne), on 22 June 1940.

On the anniversary of the Armistice of the previous war, 11 November 1940, the students of the University of Paris staged a public demonstration, marching along the Champs Elysées to deposit flowers under the Arch of Triumph at the Tomb of the Unknown Soldier. Roussy refused to interfere or discourage the students’ patriotic demonstration which was bloodily repressed.^{469b} The alien authorities already suspected that the focus of the Resistance had originated in the Sorbonne and pressed the Vichy government to dismiss the rector. All faculties of the University were closed.^{469b}

Roussy continued to work at the Cancer Institute during the occupation. He did experimental work on chemical carcinogenesis, published an article on lymphosarcomas of rats, another on tumors of the hemopoietic system, and another on the clinical problems presented by what he deliberately called black tumors of the skin to indicate that they were not all melanocytic.^{551,552,553}



Fig. 13-4. Bas-relief medallion of Gustave Roussy. (Courtesy of M. Ramón Morales.)

There were collaborators, but there was also the Resistance. Early on the morning of 27 November 1942, as German troops thundered towards the port of Toulon for surprise occupation, explosives were touched off, fuel tanks, munitions dumps, and harbor fortifications were blown up, rather than allow the naval might of France to fall intact to the enemy. Sixty warships went down in fiery splendor.

Eventually, Paris was liberated, and soon afterward Roussy was reinstated to his position at the Sorbonne. He paid due credit to the people’s passion for liberty and the heroism of the national resistance that had brought France back to the community of free nations. In 1944 he was elected secretary of the Academy of Medicine. He was asked to attend a ceremony postponed for five years: in the Palais de Roumine of the University of Lausanne, he received an honorary degree of Doctor of Medicine. The long citation was given by the dean of the Faculty of Medicine. Arnold Reymond, a childhood friend, mathematician, and professor of theology was present at the ceremony. In his acceptance speech, Roussy recalled their years in the country in Vaud. He pointed out that while Reymond had chosen idealism and he himself favored rationalism, the divergence had not broken the bonds of their long friendship and faithfulness to each other.

In January 1946, Roussy resigned as director of the Cancer Institute, and René Huguenin became his successor. Roger Leroux was already in full charge of pathological anatomy at the medical school. That year Roussy was made a Grand Officier de la Legion d’Honneur.

Early in 1947, Roussy was called to be a member of a new Conseil de Ministres headed by M. Ramadier. His acceptance of this political appointment proved to be the bane of his life. Out of his academic ambiance, he was a philosophical ideologue in the midst of impatient pragmatists. Shortly afterward on 29 May 1947, a scandal appeared on the front pages of the Parisian newspapers. Robert Schuman, Minister of Finances, charged Roussy with the illegal exchange of large sums of Swiss money without passing through the official agency of exchange, and a judiciary inquest was ordered. Roussy was dismissed from the Cabinet and from his position as rector. He protested his dismissal, admitting to overlooking a report, but not to any other impropriety. He was indicted, and his *Notaire* (ministerial secretary), M. Decloux, was imprisoned (*Le Figaro*, 30 May 1947, p. 1). A man by the name of Pastor Diez admitted to having been a *prête-nom* for fifty thousand francs and was also imprisoned. His testimony and that of Decloux were contradictory (*Le Figaro*, 8 June 1947).

On 5 June 1947 Roussy attempted suicide by poisoning. One of his suicide notes was addressed to the



Fig. 13-5. The present day Gustave Roussy Institute and National Center of Scientific Research at Haut Bruyères.

Procureur Général (Public Prosecutor) who, on reading it, was reported to have exclaimed, "The newspapers killed him!" On 10 June, Roussy's condition worsened, and he was in a coma. With the dedicated efforts of Huguenin and other physicians, he eventually recovered.

The slow pace of judicial proceedings kept the *Affaire Roussy* in the public eye. Eight months later, Judge Pieri terminated the inquest, separated the cases of Roussy and Decloux, and declared a *non-lieu*, dismissing the charges against Roussy (*Le Figaro*, Paris, 2 May 1948). Thus, Roussy was officially exonerated. In the winter of his life, the indignity of the charges and the shame of the publicity seem to have been too much for his subtle sensibilities. One can only imagine the anguish of his desolate withdrawal, his spiritual agony, the fatally wounded dignity of this exemplary man. Rationalism failed him. On 30 September 1948 Roussy again attempted suicide, this time successfully by venesection. He was seventy-four years old (*Le Figaro*, 1 Oct. 1948, p. 1).

Highly emotional obsequies were held in the cemetery of Montparnasse on 4 October 1948. The rector of the university, the deans of the medical schools of Paris and Marseille, former associates, and students addressed their heartfelt *adieux* to the departed patron. Rector Jean Serrailh (1891–1964) recalled how easy it was to be won by the height of his ideals, the

ardor of his words, his kindness, and his detachment from material interests. Dean Léon Binet (1891–1974) related how he had transformed the Faculty of Medicine, its organization, programs, and teaching methods, while retaining his ability to arouse the enthusiasm of students. Dean Cornil testified to the long view of his creative thoughts, his natural enjoyment of research, his ardor in defense of free thought, and his spirit of tolerance. Cornil added touchingly that the notes Roussy had written in the last evening of his life revealed a richness of heart considerably more sensitive than he had let them know.^{568c} After Roussy's death, Oberling was recalled from Teheran to resume his charge of the Cancer Research Laboratory, to become part of the National Center for Scientific Research.

On 10 February 1949 the Ligue des Droits de l'Homme, a citizen's organization for the defense of civil rights, demanded the public rehabilitation of Roussy's name (*Le Figaro*, 10 Feb. 1949). On 21 February 1949, the Academy of Medicine of Paris rendered supreme homage to the memory of its departed secretary. A moving obituary written by Jean L'Hermite was read by Roger Leroux (*Le Figaro*, 22 Feb. 1949).⁴³⁸

On 1 April 1950, eighteen months after his demise, an official decree of the French government renamed the Cancer Institute, which Roussy had

founded and nurtured, to be known thereafter as the Institut Gustave Roussy. The decree was signed by Georges Bidault, president of the Conseil de Ministres; by Pierre Schonetter, Minister of Public Health; and by Henri Queuille, Minister of the Interior.⁴³⁶

At the dedication ceremonies for the Institute, in the presence of cabinet ministers and other officials, René Huguenin spoke movingly of the chief who had inspired their work and referred to his Cartesian discipline as responsible for their progress. Dean Léon Binet again recalled Roussy's efforts to modernize the Faculty of Medicine while contributing to the research laboratory to elucidate the role of the hypothalamus and hypophysis. Rector Jean Serrailh ex-

pressed the satisfaction of the University of Paris at seeing justice done, Roussy's innocence recognized, and his name rehabilitated, albeit post-humously.^{339,448} At the completion of the ceremonies, a bas-relief medallion with the profile of Roussy was unveiled by Professor Laubry representing the Academy of Sciences and Academy of Medicine (Fig. 13-4). Roussy's successors, through their dedication, have rendered him symbolic homage and converted the institution at Haut Bruyères into a monument to the memory of this enlightened man (Fig. 13-5). The Institut Gustave Roussy is second only to the Institut Pasteur of France in its biologic and medical research and is a leader in oncologic research.

Subject Notes

13.1 Roussy's ancestors are registered in the Canton of Vaud in the French language. However, probably because of the marriage of his paternal grandfather to Anne Marie Gennillard of Gesseney (Saanen), his ancestors on both sides are also recorded in the Canton of Berne. In the latter, the city of Gesseney is called Saanen, and the family name as well as the baptismal names of the same members of the family are spelled differently than in the records of Vevey. Thus, Pierre Samuel Roussy of Vevey is recorded as Peter Samuel Russi in Berne and his grandson as Gustave Samuel Russi. Swiss citizens with the family name of Russi seem to originate from the region of Uri, one of the original three states of the Swiss Confederation.

13.2 Emile Louis Roussy, Gustave's father, was a notable personage. Having inherited the mill at Gilamont from his father, he developed it into a processing plant that became the main supplier of flour for the Nestlé industry, of which he became a partner. When Nestlé merged with the Condensed Milk Company, he became the president of the board of the consolidated enterprise, a position he kept until his death in 1920.