

INSTITUT PASTEUR

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For more than a century, the Institut Pasteur has been at the forefront of the battle against infectious disease. Based in Paris, it was first to isolate the acquired immunodeficiency syndrome (AIDS) virus in 1983. Over the years, it has been responsible for breakthrough discoveries that have enabled medical science to control such virulent diseases as diphtheria, tetanus, tuberculosis, influenza, yellow fever, and plague. Since 1908, eight Institut Pasteur scientists have been awarded the Nobel Prize for medicine and physiology.

The Institut Pasteur was founded in 1887 by Louis Pasteur, the French scientist whose early experiments with fermentation led to pioneering research in bacteriology. A giant in science, Pasteur discovered the principle of pasteurization. He developed techniques of vaccination to control bacterial infection, as well as a successful vaccine against rabies.

Louis Pasteur was committed both to basic research and its practical applications. His successors have sustained this tradition, as reflected by the Institut Pasteur's unique history of accomplishments. During Pasteur's lifetime, Emile Roux and his colleagues discovered how to treat diphtheria with antitoxins; Elie Metchnikoff received the Nobel Prize in 1908 for contributions to the scientific understanding of the immune system, and Jules Bordet received it in 1919 for his discoveries on immunity. Charles Nicolle received the Nobel Prize in 1928 for unraveling the mystery of how typhus is transmitted.

Since World War II, Pasteur researchers have sharply focussed on molecular biology. Their achievements were recognized in 1965, when the Nobel Prize was shared by François Jacob, Jacques Monod, and André Lwoff for their work on the regulation of gene expression.

Today, the Institut Pasteur is not only one of the world's leading research centers, but also a graduate study center and an epidemiological reference center. The Institute maintains 24 overseas branches on five continents, most them

in Third World countries, and operates an 80-bed teaching hospital in Paris.

More than 1100 scientists work at the institute's research center in Paris (Fig. 1).



FIG. 1. The Institut Pasteur, founded in 1887 in Paris, France

Since its founding, the Institut Pasteur has brought together scientists from many different disciplines for postgraduate study. In 1994, 480 foreign visitors from 72 different countries participated in study programs at the institute. They included pharmacists and veterinarians, as well as medical doctors and other scientists.

Established in 1900, the Institut Pasteur Hospital specializes in the diagnosis and treatment of infectious diseases. It was the first institution to prevent transmission of infectious diseases in hospitals by isolating patients, and, in Paris, it introduced such medical interventions as the use of the tuberculosis vaccine and sulfa drugs. Patients today come from all over the world for treatment of complex disorders, including parasitic diseases, AIDS, and other immune deficiencies.

Strains of bacteria and viruses from many different countries are sent for identification to the institute's reference center. In addition to maintaining this vital epidemiological resource,

the Institut Pasteur serves as advisor to the French government and the World Health Organization (WHO). Pasteur scientists also help to monitor epidemics and control outbreaks of infectious disease throughout the world. These activities have created a close collaboration between the institute and the U.S. Centers for Disease Control (CDC).

The Institut Pasteur is and has always been a private, nonprofit organization. By drawing financial support from many different sources, the institute protects its autonomy and guarantees the independence of its scientists. Institute funding includes French government subsidies (34%), consulting fees, licensing royalties, contract revenue (41%), and private contributions (25%).