

# PASTEUR MÉRIEUX CONNAUGHT: OUR SHARED HERITAGE

The common historical roots of Pasteur Mérieux Connaught can be traced directly to **Louis Pasteur** (1822-1895), the father of modern microbiology, immunology and public health. In 1888, **Pasteur** established Institut Pasteur in Paris for the purpose of manufacturing the rabies vaccine that he had discovered, the pursuit of scientific research into infectious diseases, and the teaching of microbiology.

The names Pasteur and Mérieux were first linked in 1894 when **Marcel Mérieux** (1870-1937) joined the Pasteur Institute as an assistant. The discovery of diphtheria antitoxin soon followed, ushering in a new era of disease control and preventive medicine through the wide use of specific biological public health products. After three years in Paris, **Mérieux** went home to Lyon where he set up a small commercial diagnostic laboratory he called the Mérieux Biological Institute.

Canada's connection to Pasteur began in 1910 when **John G. FitzGerald** (1882-1940), a University of Toronto medical graduate, studied at the Pasteur Institutes in Paris and Brussels. **FitzGerald** spent two summers at the Institute and was determined to bring Pasteur's integrated vision of medical research, biologicals

production and public health service to Canada. In 1913, **FitzGerald** built a modest laboratory and stable on Barton Ave., in Toronto.

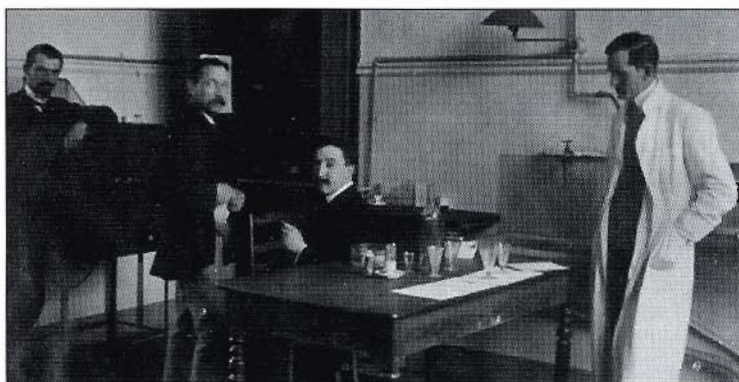
The outbreak of World War I put tremendous pressure on **FitzGerald's** laboratory, especially to produce tetanus antitoxin for Canadian soldiers. This need prompted **Sir Albert Gooderham** to give the University a large farm property north of Toronto and enough money to build stables and modern laboratory facilities. On October 25, 1917, when the new farm buildings officially opened, **FitzGerald's** unique creation was given an official name: Connaught Antitoxin Laboratories, after the Governor General of Canada during the war. In the same year, **Marcel Mérieux** used a family inheritance to buy farm land at Marcy l'Etoile, outside Lyon. Some 80 years later, both sites remain primary centers of research and manufacturing for Pasteur Mérieux Connaught.

**FitzGerald** was a frequent guest of the Pasteur Institute and developed close friendships with other scientists there, including **Albert Calmette** (1863-1933) and **Camille Guérin** (1872-1961), who had developed a vaccine against tuberculosis, known as BCG vaccine, which was named after them. Today,

Connaught's BCG vaccine has proven useful for more than just TB immunization. It is an important Immunotherapeutic treatment for bladder cancer.

**FitzGerald** and Connaught were perhaps closest to **Gaston Ramon** (1886-1963), who discovered diphtheria toxoid at the Pasteur Institute in 1923. **FitzGerald** happened to be visiting the Institute shortly after Ramon's discovery, and immediately ordered Connaught scientists back in Toronto to start preparing the new toxoid right away. Within six months of **FitzGerald's** meeting with **Ramon**, Connaught was distributing the toxoid across Canada and conducting pioneering field trials.

By the late 1940s Connaught had become a leading international centre for virus research and vaccine production, particularly for its ambitious program of polio research. Connaught's research attracted the attention and collaboration of researchers at the Pasteur Institute, including **Pierre Lépine**, its leading polio scientist. Connaught's Director, **RD Defries**, kept both **Mérieux** and **Lépine** up to date on Connaught's polio vaccine progress, which was licensed in Canada and the U.S. in 1955. In 1956 **Lépine**, at the Pasteur Institute, developed a modified



During the summers of 1910 and 1911, Dr. J.G. FitzGerald studied at the Pasteur Institutes in Paris and Brussels. This photograph shows FitzGerald (standing right) in Brussels in 1910. Photo courtesy of James FitzGerald, grandson of Dr. FitzGerald (CA Acc. 0991).



PMC's Shared Heritage Display



version of IPV using a French virus strain. He then worked closely with Institut Mérieux, where the vaccine was manufactured for France. As the world's primary suppliers of IPV since the mid-1950s, both Connaught and Institut Mérieux maintained a very close relationship with **Jonas Salk**. During the 1970s and early 1980s this relationship led to important improvements in the large scale production of an enhanced IPV.

Since the early 1940s, Connaught has been a world leader in developing combined antigen products, such as DPT vaccine against diphtheria, pertussis and tetanus. In early 1959, Connaught was the first organization to license a combined DPT-Polio vaccine. Connaught's leadership in this area attracted the close attention of **Charles Mérieux**, who, with Connaught's help, developed a similar product in France. Thirty years later, Connaught and Mérieux's leadership in combined vaccines resulted in the introduction of the PENTA vaccine, a five component

DPT antigen with enhanced IPV, combined with Hib vaccine against haemophilus influenza type B.

During the 1960s Connaught and Mérieux grew closer, particularly through joint work on measles and rabies vaccines and a wide variety of veterinary products. There were numerous visitor exchanges between Connaught and Institut Mérieux during the 1960s and 1970s, facilitated by a close friendship between **Charles Mérieux** and Connaught's Assistant Director, **Robert J. Wilson** (1915-1989), who often flew together in Charles' private plane. In the late 1970s Connaught and Institut Mérieux attempted to cooperate more officially, especially to improve the Salk vaccine, foreshadowing their formal alliance a decade later.

By the late 1980s Institut Mérieux had forged a formal alliance with Institut Pasteur to create Pasteur Mérieux Serums and Vaccines. The addition of Connaught's Toronto and Swiftwater, PA,

sites in 1989 brought key North American components to the marriage of these three pioneering public health institutions. Thus was born Pasteur Mérieux Connaught, the world's largest producer of human vaccines, from a shared heritage and vision of dedicated research, innovative manufacturing and public service that began with Louis Pasteur over a century ago.

This is the message of an ambitious photographic and video exhibit produced by Connaught's Toronto facility in March 1996. This effort was sparked by the who desire to reaffirm the strong historical connections between Connaught and the Pasteur and Mérieux organizations. The exhibit was produced by Public Affairs and Library Services, under the direction of **Don McKibbin**, **Mary Smith** and **Hugh McNaught**. It was researched and written by Christopher Ruty, a medical historian with close connections to Connaught.

• **Christopher J. Ruty, Ph.D.**



# The Year of the Vaccine

1996 is The Year of the Vaccine, and Pasteur Merieux Connaught is the major private sector sponsor of all events scheduled for this year. To bring the celebrations closer to home, a Traveling Product Display has been produced by PMC and one product a month will be featured in the cafeteria of building 83. The display is designed to give employees up to date information on PMC products. A special thank you to Connaught's Marketing Department for helping with its development.

Along with this display will be the showing of IMAGES, the PMC video news program. Any employee who is attending a special function and would like it video taped, for possible inclusion in IMAGES, please contact me directly so we can make the appropriate arrangement.

The display is scheduled to be up the third week of every month for one week and all employees are encouraged to take some time to view the video and see the display.

• **Grace Pearcey**

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