



Sanofi Pasteur Expands Canadian Facility

Widely considered one of the greatest advances in the history of medicine, vaccinations are the cornerstone of public health programs around the world. Located north of Toronto, Sanofi Pasteur is a leading site for production and research and development (R&D) in the industry.

"The Connaught Campus proves the old maxim that success begets success," says Mark Lievonon, President of Sanofi Pasteur Limited. "Over the years we have reinvented ourselves so that we can continue to contribute as a leader in vaccine development and manufacturing. The site's reputation makes it easier to attract the best and brightest minds from around the world."

Sanofi Pasteur is the vaccine division of Sanofi-Aventis Group, one of the world's largest pharmaceutical companies, based in France. In 2008, Sanofi Pasteur produced enough vaccine to immunize more than 500 million people worldwide. The Toronto site, which employs over 1,100 people, is one of several major sites of Sanofi Pasteur.

Sanofi Pasteur's commitment to R&D

The Sanofi-Aventis Group in Canada spends nearly \$200 million dollars on R&D in the country, making it the number one investor in the country's pharmaceutical industry, and the ninth-largest investor overall. The vaccine division accounts for half of this number. Over 300 employees at Sanofi Pasteur in Canada are involved in R&D, from discovery to clinical trials and regulatory approvals.

"A strong investment in research makes good business sense for the company," explained Mr. Lievonon. "The demand for vaccines is expected to increase due to a number of



Mark Lievonon

factors, including expanding worldwide markets, and our Connaught Campus is ready to be part of this growth opportunity".

A recent milestone for the company's growth was the start of construction of a \$100 million expansion of the site's R&D facilities. The investment in Toronto will add approximately 165,000 square feet (15,000 square metres) to the company's Connaught Campus, increasing research space so that scientists can work on new vaccines. Since 2000, the company in Canada has committed more than

\$300 million to expand and improve the over-all facility. Sanofi Pasteur's dedication to R&D has led to collaborations with the larger research community. The company strongly believes in partnerships, bringing together talents in the public and private sectors. "Our partnerships have allowed us to work with top-quality schools and research institutions, such as the University of Toronto, where we are funding a Chair in Human Immunology and Sunnybrook Health Sciences Centre. Partnerships strengthen the company's capacity to innovate," said Mr. Lievonon.

Canada offers a host of other advantages, such as well-developed infrastructure, rigorous health-care standards and regulations, and research-and-development tax credits. "All of these resources are essential because they help to offset the high cost of developing, testing and manufacturing vaccines," said Mr. Lievonon.

Emerging diseases, significant threats

Working together globally, Sanofi Pasteur's sites are tackling new and emerging diseases. Two generations ago, childhood diseases such as mumps, measles and chicken pox caused widespread suffering and even death. Epidemiologists estimate that smallpox alone claimed more than 300 million lives during the 1900s. The development of vaccines, along with widespread inoculation campaigns, has virtually eliminated many of these diseases from the developed world. In recent years, however, new disease threats continue to emerge at an alarming rate.



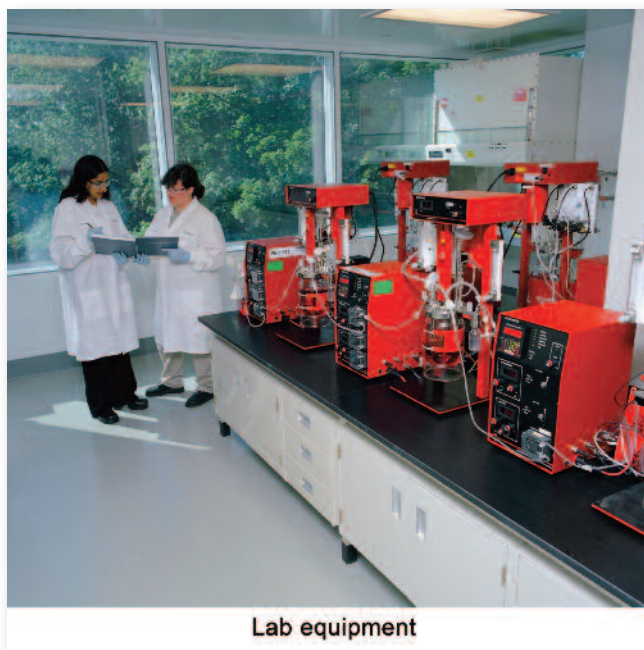
“Some diseases emerge when viruses that once only affected animals, mutate into something that can infect humans,” explained Mr. Lievonen. “This is the case with avian flu, for example. As well, the nature of transmission has changed due to a number of factors: global trade and international travel means that infectious diseases can spread to more places more quickly than ever before.”

There is also evidence to suggest that changes in climate patterns affect the spread of disease. Dengue fever, for instance, is no longer confined to the tropics. Other emerging disease threats include SARS, West Nile virus and new strains of meningitis. Globally, Sanofi Pasteur is making progress toward vaccines for all of these diseases.

“In the modern era, existing and emerging infectious diseases present threats not only to public health, but also to national and global security,” said Mr. Lievonen. “A pandemic could lead to widespread panic and destabilize entire countries and continents.”

Sanofi Pasteur's investments in Canada help bolster this country's capacity to develop and manufacture vaccines to fight emerging disease. In its simplest form, vaccination involves the introduction of a tiny amount of a killed inactivated antigen. Once the immune system detects the

antigen, it produces the antibodies needed to combat it. If a vaccinated person is later exposed to a large amount of the same pathogen—by coming in contact with a contagious person, for instance—the immune system can usually produce enough antibodies to prevent serious illness.



Lab equipment

five-in-one vaccine against diphtheria, tetanus, pertussis, polio and *H. influenzae* in the 1990s.

Researchers at the Connaught Campus will continue to focus on the development of combination vaccines and new vaccines for pediatric, adolescent and adult diseases.

“Vaccine research holds tremendous promise for humankind,” said Mr. Lievonen, “and we're determined to fulfill that promise.”

Carrying on a rich history of innovation

Sanofi Pasteur's history of innovation spans over 90 years, from the commercialization of diphtheria antitoxin and insulin and large-scale production of polio vaccine in the second half of the 20th century when the site was known as Connaught Laboratories, to the recent research and development of Pentacel[®], the world's first

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