

# 120 years



SWIFTWATER SITE 1897 2017 120

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**Pictured, Top (from left):** The Pocono Biological Laboratories established in 1897; Swiftwater site founder Dr. Richard Slee; A scientist checks laboratory equipment; Examination of a series of laboratory specimens; Vials of vaccine await labeling. **Bottom (from left):** Aerial photo of current Sanofi Pasteur site in Swiftwater; Swiftwater site in Swiftwater receives the Army-Navy "E" flag for excellence in production; A scientist examines samples.

## SANOFI PASTEUR

### COMMITTED TO IMPROVING PUBLIC HEALTH THROUGH VACCINE DEVELOPMENT FOR 120 YEARS

**THE SWIFTWATER SITE OF SANOFI PASTEUR**, the vaccines division of Sanofi, has developed and produced vaccines in the heart of the Poconos since 1897. Founded as the Pocono Biological Laboratories by Dr. Richard Slee, the site has grown from its original four acres to now over 500. Sanofi Pasteur's Swiftwater campus became one of the largest sites across the globe dedicated to vaccine manufacturing and development. Growing over the years, one thing has remained constant: its commitment to public health and vaccine innovation.

"It is amazing to see how the site has grown with the evolution of immunology and vaccine technology compared to medicine, science and public health in the 1890s. Today the site is a vital contributor to public health around the world," said David P. Greenberg, M.D., Associate Vice President and Regional Medical Head North America.

Dr. Slee founded the site 120 years ago to develop an improved smallpox vaccine by minimizing side effects and increasing vaccine stability. The site later contributed to World War efforts with tetanus antitoxin and diphtheria antitoxin vaccines. Operating as part of the National Drug Company, Swiftwater received the Army-Navy "E" flag for "Excellence in Production" for its contributions.

Another noteworthy development occurred in 1944

with the production of the first commercially successful combination vaccine against tetanus, diphtheria and pertussis. "The development of combination vaccines was a huge achievement," Greenberg said.

Today, Sanofi Pasteur's Swiftwater site, one of the largest facilities dedicated to vaccines, is the largest provider of the influenza vaccine in the United States (US). The site also provides vaccines against meningococcal meningitis, invasive disease caused by *Haemophilus influenzae* type b, tetanus, diphtheria, pertussis, polio and yellow fever. 120 years after Slee settled in Swiftwater, the campus continues its impressive trajectory. Its vaccines go to 60 different countries, including Canada, and those in Europe and Central and South America.

Historically, Sanofi Pasteur's vast research and development resources at the Swiftwater campus help set it apart from its competitors. The process of vaccine development begins by identifying bacteria and viruses (or their parts) to be used in a vaccine candidate. The hope is the vaccine candidate can meet a medical need by demonstrating it helps provide protection against disease. There is a lot of trial and error when a new vaccine is in development, in part because, as biological substances, vaccines are very different from other inorganic pharmaceuticals. "Our employees are specialized in every aspect of vaccine development and manufacturing," says John Shiver, Senior Vice President, Vaccine R&D.

Quality control is of utmost importance at Sanofi Pasteur due to the delicate manufacturing process of vaccines. Quality

control testing occurs at every step of the manufacturing process and accounts for 70 percent of production time. Sanofi Pasteur's flu vaccines take six months to manufacture and other vaccines may take up to 18 months to produce.

With its 500-acre campus, state-of-the-art facilities and the complex process of producing vaccine, Sanofi Pasteur works to meet the public health needs. The company emphasizes its wide-ranging vaccine portfolio that helps protect against 21 different diseases worldwide. The Swiftwater site typically produces 120 million doses of vaccine annually. In 2016, it provided the US with 70 million doses of flu vaccine.

"Every day, there's lots of activity, lots of people, lots of resources necessary to provide that volume of vaccine" said Greenberg. Sanofi Pasteur has 12 vaccines in development and plans for expansion in the future. The past couple years underwent a period of rapid growth with the opening of two new facilities for Quality Control (QC) and Global Clinical Immunology. The new QC building supports the increasing volume of tests required by the continuous growth of existing products, while welcoming innovative analytical methods needed for the next generation of products like our investigational *Clostridium difficile* vaccine. The new Global Clinical Immunology facility, operational since 2016, supports innovation, the development of the company's new vaccines portfolio and post-licensure product commitments.

A new cutting edge manufacturing facility for yellow fever and dengue vaccine production is anticipated to be

operational this year and licensed by the FDA in 2018. Sanofi Pasteur also recently broke ground for another facility dedicated to flu vaccine development, thus increasing its capabilities as the leader in the field.

Sanofi Pasteur will remain committed to meeting public health needs while also recognizing its natural setting. A high-quality cold water creek runs through the site so there are very high environmental standards and requirements that must

be met. Accordingly, while the industrial manufacturing site continues to grow Sanofi Pasteur will continue its efforts to maintain the integrity of the environment.

The company values a philosophy of stewardship in its vaccines safety and quality as well as providing

a helping hand to its community. Sanofi Pasteur values its relationship with the community and gives back through annual fundraisers, regular donations and employee activities with local nonprofits like the United Way, Head Start and Habitat for Humanity. For example, Sanofi Pasteur employee-volunteers have conducted 22 annual holiday food and clothing drives to benefit Monroe County Head Start children and their families.

Sanofi Pasteur's commitment to improving public health remains first and foremost grounded in the company credo: the belief that no one should suffer or die from a vaccine-preventable disease.

Sanofi Pasteur's company credo: No one should suffer or die from a vaccine-preventable disease.

1897	5	Dr. Richard Slee	1	United States
&	# OF EMPLOYEES	PRESIDENT/CEO	# OF OFFICES	GEOGRAPHY COVERED
2017	2,500	David Loew	63	More than 100 countries