

Vaccines at Sanofi

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Explore partnering with Sanofi's vaccines business

Building on its history of successful collaborations, the global business unit at Sanofi responsible for vaccines is seeking partners with a common drive for excellence and pursuit of innovation.

Not only is Sanofi's vaccines business at the forefront of conquering newly targeted diseases, but the company is also leading the way in expanding immunization across all age groups, including adolescents and the elderly. This leadership has translated into outstanding success in the industry.

Sanofi's vaccines business is interested in partners who will share in the pursuit of innovation and the company's drive for excellence while becoming a part of its market success story. "We welcome the opportunity to evaluate technologies related to the development and production of human vaccines, both prophylactic and therapeutic, including vaccines for chronic infectious diseases," said Roman Chicz, global head of external research and development.

Sanofi's vaccines business is improving global human health by the discovery, development, manufacture and supply of vaccines for the prevention and treatment of infectious diseases.

Sanofi's vaccines business has a strong commitment to the establishment of research and development partnerships with major universities, research institutes, government agencies, biotechnology companies and non-governmental organizations. The company's collaborations cover virtually all aspects of vaccine development, including early-stage research.

An example is its partnership with AstraZeneca to develop the first potential solution for protecting all infants from respiratory syncytial virus (RSV) disease. This novel, long-lasting monoclonal antibody, if approved, will provide the first single-dose option for preventing this highly contagious virus, which is the leading cause of bronchiolitis and pneumonia in infants



The vaccines business at Sanofi is interested in potential partnering opportunities in the field of active and passive human immunization, as well as technologies supporting product development and industrial performance, including:

Vaccines and monoclonal antibodies against infectious diseases

- Prophylactic vaccine candidates (respiratory viruses, multi-pathogen nosocomial, latent infections, bacterial targets, gastrointestinal pathogens)
- Therapeutic vaccine candidates (multi-pathogen nosocomial, latent infections, bacterial targets)
- Monoclonal antibodies against infectious disease targets

Enabling technologies (including mRNA) for preventing and treating infectious diseases

- mRNA vaccine technologies—mRNA design, delivery, stabilization, production and formulation
- mRNA vaccine raw materials and production—pDNA, improved enzymes, lipids
- Novel antigens and methods for antigen discovery, optimization and characterization
- New ways to administer vaccines, including mucosal routes (oral, sublingual, intranasal)
- Nanoparticles, carrier proteins, and methods of conjugations of proteins and polysaccharides
- Novel vectors for delivering antigens
- Adjuvants and immunomodulators

Characterization and assays of immune responses, disease markers and disease targets

- Animal models, including of human diseases
- Biological markers and tools for evaluating the efficacy of prophylactic or therapeutic interventions
- In vitro, ex vivo and 3D models of human tissues, including the immune system
- B cell immunology and immunosenescence
- Imaging/bioimaging
- Systems biology methodologies (omics) related to biomarkers, safety, and disease target identification
- Bioinformatics techniques for modeling, data handling and analysis
- Artificial intelligence, machine learning and machine vision

Vaccine manufacturing

- Prokaryotic or eukaryotic cell lines for antigen production
- Upstream and downstream processes, optimization technologies
- Process automation and digital innovation
- Preservatives and stabilizers
- Nonionic detergents
- Anti-counterfeiting technology

Microbiome-associated technologies

- Biologics (antibodies, phages etc) to modify the gastrointestinal, skin and/or oral microbiome

and a major cause of hospitalization throughout the first year of life.

Other partnerships and technology investments include vaccine candidates against COVID-19, RSV, *Streptococcus pneumoniae*, acne and broadly protective influenza; pediatric combination vaccines; largescale cell culture-based virus production; vaccine production; and vaccine delivery systems.

A company that partners with Sanofi's vaccines business interacts with a multidisciplinary team with years of experience in working to ensure that partnerships are executed successfully and are nurtured for the mutual benefit of all parties.

This approach utilizes the value-added benefit of the Sanofi vaccines business alliance management capability, which focuses on the relationship by facilitating open communication, trust, understanding and clear expectations across the project lifespan.

Combined with the technical competency of the alliance, this balance provides a well-rounded

environment in which novel technologies can flourish. Currently, 100% of Sanofi's vaccines business preclinical portfolio and ~65% of its clinical portfolio has a partnering component. The Sanofi vaccines business welcomes information about new partnership opportunities. Each opportunity is carefully evaluated and reviewed by its dedicated team.

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