

Vaccine sciences lab

Specialized vaccine development capabilities

Our team works with you to speed the introduction of life-changing vaccines.

Our **vaccine sciences lab** builds upon **three decades** of pharmaceutical development expertise to support your vaccine programs at any development stage from **pre-clinical through post-approval**.

Our extensive capabilities ensure development of innovative analytical methods and accurate, high-quality and rapid vaccine test results. PPD™ Laboratory services helps you achieve the highest scientific standards for your program while focusing on efficiencies.



30+ years of experience providing a full range of vaccine services



High-throughput, automated and/or multiplex assays



500+ scientists and 90,000+ sq. ft. of vaccine lab space globally



125+ assay methods developed for Phase I to IV

Our suite of services

- Antigen detection/quantitative RT-PCR/sequencing
- Traditional and multiplex immunoassays
- Virus neutralization assays (VNA/MNT)
- Cell-mediated immunity methods
- Viral and bacterial functional assays
- Statistical support services
 - 23 years' experience
 - Routinely provide reports for assay qualification, validations, transfers, optimization, reagent qualification, stability studies and relative-potency rate
 - Recommend assay acceptance criteria
 - Design of experiments (DOE)
 - Support for regulatory responses
 - Reference standard calibration

Diverse experience with multiple assay formats

- Molecular assays
 - PCR
 - Sequencing
 - Nucleic acid purification
- Immunology assays
 - ELISA/EIA/HAI
 - MSD electrochemiluminescence
 - Luminex multiplexed
 - Flow cytometry
 - Opsonophagocytic assays (OPA/OPK/MOPA)
 - Enzyme-linked immunospot (ELISPOT)
 - Serum bactericidal assay (SBA)

PPD Laboratory services partners closely with customers to drive development with well-defined assays backed by our extensive experience consisting of 15 FDA-approved vaccines and three COVID vaccines that have received EUA or international approval.

Broad therapeutic and research experience

Bacterial agents

- Clostridium difficile (C. diff)
- Diphtheria, tetanus and pertussis (DTP)
- Escherichia coli (E. coli)
- Group B streptococcus
- Haemophilus influenzae type b (Hib)
- Neisseria meningitides (meningococcal)
- Staphylococcus aureus (Staph. aureus)
- Streptococcus pneumoniae (pneumococcal vaccine)
- Mycobacterium tuberculosis
- Pseudomonas aeruginosa
- Plasmodium falciparum (malaria parasite)

Viral agents

- Coronavirus (SARS-COV-2)
- Cytomegalovirus (CMV)
- Dengue virus
- Epstein-barr virus
- Hepatitis A, hepatitis B
- Human immunodeficiency virus (HIV)
- Human metapneumovirus
- Human papillomavirus (HPV)
- Influenza virus
- Lymphocytic choriomeningitis (LCMV)
- Measles, mumps, rubella (MMR)
- Norovirus
- Respiratory syncytial virus (RSV)
- Varicella-zoster virus (VZV/chickenpox and shingles)
- Monkeypox

The global presence you need

Our two strategic locations in Richmond, Virginia, U.S. and Suzhou, China, allow PPD to support customers' global vaccine programs across all phases of pharmaceutical development. Building upon our two-plus decades of vaccines experience in Richmond, our Suzhou laboratory (6,000 sq. ft. of dedicated lab space) significantly enhances our vaccines capabilities in the Asia-Pacific region. The China facility expands upon the suite of services offered in Richmond, including high-throughput, automated and/or multiplexed assays, leading-edge technology platforms and regulatory expertise.

PPD Laboratory services

PPD Laboratory services provides high-quality scientific expertise with industry-leading technologies supported by a commitment to exceptional quality. Our customers benefit from comprehensive lab services spanning bioanalytical, GMP, central lab testing, vaccine sciences and biomarkers. Our laboratory services accelerate pharmaceutical development for small molecules, biologics, vaccines, and cell and gene therapies allowing customers to make faster decisions about their compounds.



Learn more at [our-solutions/ppd-laboratories/vaccine-sciences-lab/contact-vaccine-sciences-lab/](https://www.thermofisher.com/our-solutions/ppd-laboratories/vaccine-sciences-lab/contact-vaccine-sciences-lab/)

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