

Artemis Bioservices

Leading the Way in Arbovirus Expertise and Vaccine Evaluation

Artemis Bioservices is a distinguished contract research organisation (CRO) that provides a unique range of analytical testing services to companies working on antiviral discovery and vaccine development. Its exceptional expertise, knowledge, and skills in researching various viruses from zoonotic and vector-borne diseases set the company apart from other CROs in the industry.

Their services directly address the key questions of vaccine immunogenicity and efficacy. It offers various *in vitro* and *in vivo* assays to measure the induction and characterization of immune responses elicited by the vaccine. This enables a comprehensive understanding of the type and magnitude of the immune response and its potential correlation with protection at different levels of infection and transmission.

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The firm possesses cutting-edge knowledge in viral vaccines and boasts state-of-the-art laboratory facilities stocked with advanced equipment. These specialised labs enable Artemis to effectively address crucial inquiries from its clients, primarily focusing on the immunogenicity and efficacy of viral vaccines and antivirals. By concentrating on viral vaccines, Artemis determines how effectively they



Byron Martina,
CEO

trigger an immune response and provide reliable protection from diseases like Dengue, West Nile, and corona viruses. It also evaluates the effectiveness of drugs in inhibiting virus replication using *in vitro* assays and animal models.

Through its comprehensive suite of services, the company assists clients in evaluating the immunogenicity and protective efficacy of their vaccines or antiviral compounds. To this end, Artemis employs multiple *in vivo* models to quantify and assess vaccine effectiveness. These animal models measure different aspects of protection, including prevention of lethal disease, reduction in viral load, prevention of infection, and interruption of viral transmission. By defining the desired level of protection, Artemis then selects appropriate assays to determine if the client’s vaccine or antiviral compound has demonstrated the intended protective effects in animal models. This



supports informed decision-making and facilitates successful development in the field of viral vaccines and antivirals. Throughout these investigations, the company draws upon the latest scientific understanding to inform its interpretation of how these interventions translate to human responses.

Artemis plays a pivotal role in addressing the challenges clients face in vaccine development. A significant challenge revolves around the high failure rate of vaccines during Phase III human trials. Artemis collaborates closely with clients to mitigate this risk and identify the specific questions they aim to answer during vaccine development. It effectively interprets and analyses the data obtained from animal models and the initial stages of human trials (Phase I and II) to guide how to efficiently use these samples to answer critical questions about the vaccine’s potential success in later stages. This approach enables clients to optimise their resources and make informed decisions based on derived insights. Artemis supports clients throughout the vaccine development process through its expertise in study design, data analysis, and interpretation, increasing the chances of successful outcomes.

Highlighting the competencies of Artemis is a case study where it assisted a pharmaceutical company struggling to demonstrate the universal efficacy of their influenza vaccine in preclinical models. Through functional analysis assays

and bioinformatics analysis, it identified that the vaccine was effective against some strains but not all. The client optimised the vaccine by incorporating additional conserved regions, achieving significantly improved efficacy. Today, the vaccine progresses towards clinical phase 1 studies with unmatched Artemis expertise.

The company employs a strategic outreach approach to engage potential clients, emphasising its expertise through value-based marketing. It initiates discussions with interested prospects, explains its technologies and methodologies, and establishes trust. This approach extends to conferences, where Artemis proactively schedules meetings and presents its work, effectively communicating its expertise and forging connections.

With a team of experienced study directors and skilled technicians who adhere to the good laboratory practise (GLP) system, Artemis ensures high-quality results and effective client interaction. Artemis’ unmatched expertise makes it a well-positioned company to answer the questions of biotech and pharmaceutical companies aiming to expedite the development of novel antiviral drugs and viral vaccines. Going above and beyond, Artemis excels in evaluating the effectiveness of vaccines and antiviral drugs, solidifying its status as a leading CRO in this specialised domain.