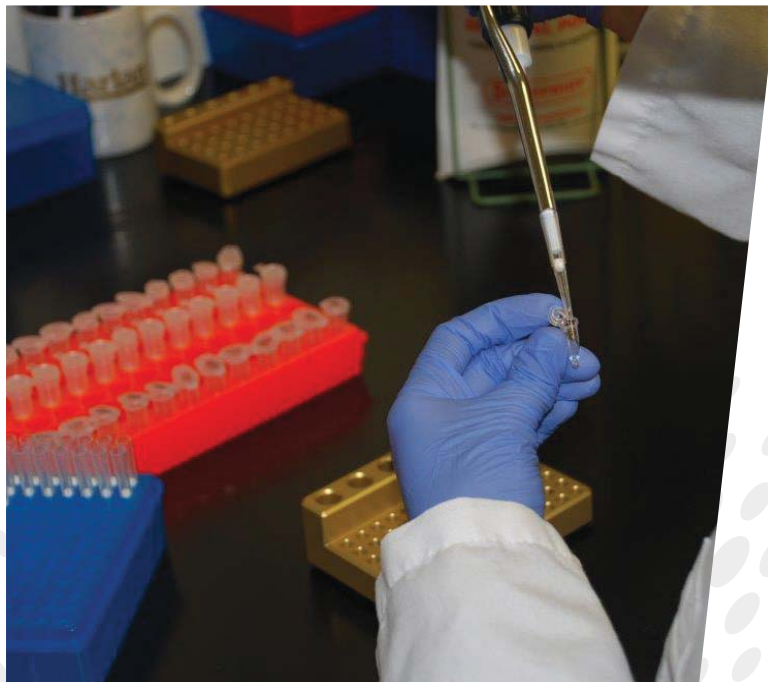


Tailor-Made[®] **Autogenous Vaccines**



***Viral & Bacterial Disease Solutions
For Veterinarians & Their Producers***

The Animal Health Need

The continuing diversity within microbial populations is an important way that pathogens adapt to their environment and evade immune responses.

When faced with any one of these situations, herd-specific vaccines may be a viable option for:

- Regional or unique strains of bacteria or viruses that may vary from those in conventional vaccines due to different serotypes or sequences.
- Emerging or re-emerging disease for which no vaccine is commercially available.
- Unresponsive disease problems that are not controlled by currently available vaccines.
- New strains or organisms that a vaccine has not yet been developed.

The History

- MVP Laboratories was established by Lysle Wilkins, DVM; Mary Lou Chapek, MT (ASCP) and F. W. Kullenberg, DVM. Founded and federally licensed in 1981.
- The genesis of the company was focused on addressing veterinarians' unmet diagnostic and vaccine needs along with exceptional customer service.
- A fully integrated part of Phibro Animal Health staffed by dedicated professionals to provide personalized service.

The Service

Our people make the difference. We are a customer-focused company made up of dedicated professionals who truly care about meeting the vaccine needs of veterinarians and their clientele

- At Phibro Animal Health, you speak to a person, not a recording.
- Prompt, courteous service - our customers' needs are our #1 priority
 - From initial diagnosis (isolation and results discussion) . . .
 - To production on a timely basis . . .
 - To handling the necessary paperwork, including herd-profile database . . .
 - To monitoring and communicating isolate extension dating and expiration.

Submission Aids

Forms (available on our Website)

- Tissue Submission and Request for Diagnostic and Laboratory Services.
- Isolate Transfer Form for submission of microbial organisms.
- Isolate Extensions and Non-adjacent approval for CVB/USDA compliance.

Coolers

- Two sizes of insulated, lined sample submission shippers are available at no charge upon request.

The Solution

Diagnostics and R&D

- Diagnostics are the backbone of clinical medicine. That is why Phibro provides a wide selection of in-house capabilities and also works closely with university, state, and national diagnostic laboratories.
- Prompt, courteous, and accurate diagnostic service is critical to producing an effective product.

Examples of our services are:

- Precise bacterial isolation
- Serotyping of isolates
- Restriction Fragment Length Polymorphism (RFLP) - used to differentiate organism strains (DNA fingerprinting).
- Polymerase Chain Reaction (PCR) - used for identification and determination of the presence of specific virulence genes.
- Phibro Animal Health's Diagnostic and R&D professionals can answer many questions with existing in-house technology or can develop specific assays.
- Extensive efforts are focused on development and validation of new diagnostic tests, protein and antigen profiles, and customized growth and isolation media.

Quality Control Standards

- Seed culture checked for purity throughout the entire isolation, fermentation, and final production processes.
- Isolate-specific growth media used for optimal antigen expression.
- Fermentation processes may be used for specific isolates based upon various conditions, including CO₂/O₂ ratios, optimal growth curve, nutritional additives, pH, temperature and agitation.
- Quality Control tests completed to assure safety and field performance include:
 - Sterility
 - Organism inactivation assurance
 - Inactivation agent neutralization

Adjuvant Options


- Adjuvants play an important role in the efficacy of vaccines. In addition to increasing the strength and kinetics of an immune response, adjuvants also play a role in determining the type of immune response generated (cellular-mediated, humoral).
- Phibro is pleased to offer a wide range of adjuvants which are then matched to specific antigens to be utilized for the appropriate situation (isolate, animal, veterinarian preferences).


Adjuvants	Type of Adjuvant
Aluminum Hydroxide	Aluminum salt used to absorb or precipitate antigens.
Carbigen™	Emulsified high molecular weight, cross-linked polymer base.
Emulsigen™	A stable, oil-in-water emulsion designed to be mixed directly with antigens, without further processing.
EmulsigenD™	Enhanced version of Emulsigen with the immunostimulant DDA
Custom Formulas	We work closely with research organizations and other biological companies to develop and manufacture custom adjuvant formulations

Tailor-Made® Autogenous Vaccines

An Extension of Your Veterinary Practice

Key Isolates From Which Phibro Routinely Produces Tailor-Made Vaccines, Either As Monovalent Or In Combination With Appropriate Isolates.

Swine 		
General Syndrome	Most Common Isolates	
Respiratory	<i>Mycoplasma hyopneumoniae</i>	<i>Haemophilus parasuis</i>
	<i>Actinobacillus pleuropneumoniae</i>	<i>Actinobacillus suis</i>
	<i>Pasteurella multocida</i>	Swine Influenza (SIV)
Enteric	<i>Clostridium difficile</i>	<i>Salmonella</i> species
	<i>Clostridium perfringens</i> , Types A and C	<i>Escherichia coli</i>
Systemic / CNS Signs	<i>Streptococcus suis</i>	<i>Haemophilus parasuis</i>
Reproductive/Other	PRRS	<i>Erysipelothrix rhusiopathiae</i>
Atrophic Rhinitis	<i>Pasteurella multocida</i>	<i>Bordetella bronchiseptica</i>
Joint Involvement	<i>Mycoplasma hyosynoviae</i>	<i>Mycoplasma hyorhinis</i>

Bovine 		
General Syndrome	Most Common Isolates	
Respiratory	<i>Mycoplasma bovis</i>	<i>Pasteurella multocida</i>
	<i>Mannheimia haemolytica</i>	<i>Histophilus somni</i>
Enteric	<i>Clostridium perfringens</i> , Type A (+ beta2)	<i>Clostridium perfringens</i> , Type C
	<i>Clostridium perfringens</i> , Types E	
	<i>Salmonella</i> species	
Pinkeye	<i>Moraxella bovoculi</i>	<i>Moraxella bovis</i>
Mastitis	Pathogens affecting Somatic Cell Count	
Other	<i>Mycoplasma</i> species	<i>Trueperella pyogenes</i>
	Coronavirus	

Minor Species		
	<i>Corynebacterium pseudotuberculosis</i>	<i>Campylobacter</i> sp.
	<i>Chlamydophila abortus</i>	<i>Chlamydophila psittaci</i>