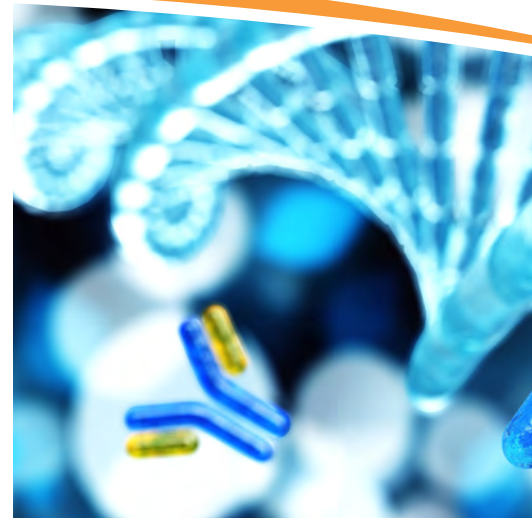




Animal &
Plant Health



Vaccine Development and Testing





APHA Scientific offers a wide range of services to help you with your vaccine development and testing requirements.

Vaccine Development

Our services range from producing initial research data to identification of vaccine candidates, through to batch testing on the finished products.

This includes:

- Primary research
- Antigen development
- Antibody and antigen detection
- Safety and efficacy tests in target species
- Testing for attenuation
- Bioequivalence testing
- Trials to meet European Pharmacopoeia (EP) monograph requirements
- Bespoke specialist scientific consultancy

Our scientists have experience of in vitro and in vivo techniques and can work on a wide range of organisms, up to ACDP 3 (Advisory Committee on Dangerous Pathogens) and SAPO 4 (Specific Animal Pathogens Order) levels. They also have access to libraries containing well characterised bacterial, viral and parasitic organisms that can be used as potential vaccine candidates or challenge organisms.



Vaccine registration experiments are performed in accordance with Good Laboratory Practice (GLP) or Good Clinical Practice veterinary (GCPv)





To assure the quality of the vaccine development service, performed within the Science Directorate, there are variety of quality standards in place, dependent on the activity.

Many of the tests undertaken are accredited to ISO 17025 and the science directorate is certified to ISO 9001.



Primary Cell Lines

APHA is able to offer a unique selection of Chick Embryo Fibroblast Cells (CEF), Primary Chick Kidney Cells (PCK) and Chick Embryo Liver (CEL) Cells.

We can provide your lab with reliable, high-quality, specific pathogen-free eggs to support you in your research projects and vaccine manufacture.

Vaccine Control Testing

APHA Scientific provides a comprehensive service to aid clients in the production of their vaccines. This work is performed to Good Manufacturing Practice (GMP) and includes:

- Screening of extraneous agents - We offer a bespoke testing service, checking for the presence or absence of contaminants such as bacteria and viruses to ensure the safety of your vaccines and demonstrate the freedom of extraneous agents
- Batch potency and safety testing
- Generation of positive control antisera

Coccidiosis Testing Service

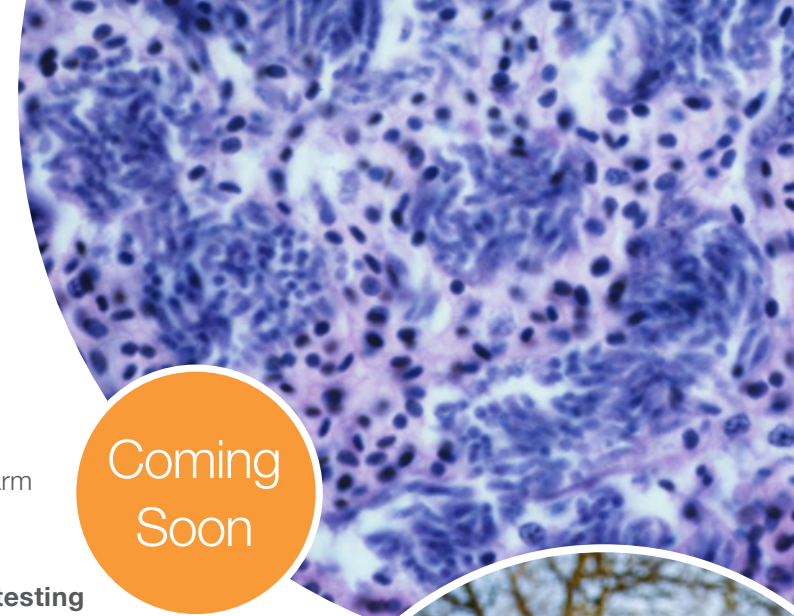
Research into the control of veterinary parasites at APHA has made a major contribution to increasing our understanding of diagnosis, pathobiology, epidemiology and development of effective treatments and control measures of parasites.

As a result, our scientists have an unparalleled wealth of expertise and understanding of coccidiosis, particularly in farm animals and collaborate with researchers across Europe, Australia, the United States and the Middle East.

APHA Scientific offers a comprehensive coccidiosis testing service, which includes:

- Safety and efficacy testing for vaccines
- Anticoccidial sensitivity tests
- Supply of suspensions of Eimeria oocysts (normal and resistant strains and some parasites that pre-date treatments such as anticoccidial e.g. Ionophore)
- Species identification for poultry, farm animals and wildlife
- Reversion to virulence trials for live vaccines
- Access to one of the largest reference libraries of parasites in the world, many of them unique such as “Eimeria Weybridge strains”

Coming
Soon

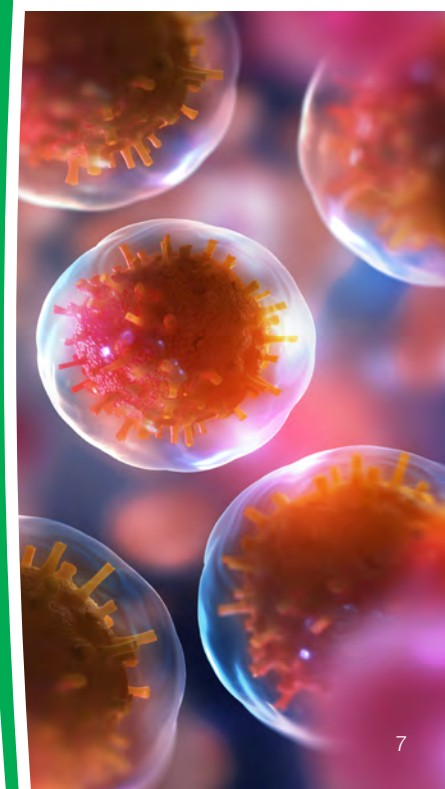




Challenge Models

The Agency holds a great variety of antigens for which it could set up in vivo models and study both pathogenesis and vaccines. APHA Scientific also offers a wide range of animal disease challenge models for testing the efficacy of experimental vaccines.

Bacteria	Species	Model	Key
Campylobacter	Chickens / Turkeys	Colonisation/ Probiotics	▲
	Chickens	Challenge	◆ ▲
Clostridium perfringens - Necrotic Enteritis	Avian	Challenge	●
	Chickens	Colonisation / Probiotics	
Enterococci	Chickens	Challenge	● ▲
Escherichia coli	Avian / Pigs / Cattle / Sheep	Challenge	● ▲
	Chickens	Challenge	◆ ▲
	Wax Moth / Waxworm	Virulence / Colonisation	▲
Mycobacterium bovis	Cattle	Challenge	
Salmonella Enteritidis	Chickens	Challenge	◆
Salmonella Typhimurium	Chickens	Challenge	◆
Salmonella	Avian / Pigs	Challenge	●
	Wax Moth / Waxworm	Virulence / Colonisation	



Virus	Species	Model	Key
African Swine Fever	Pigs	Challenge	
Avian Influenza	Chickens / Pigs / Ferrets / Turkeys / Ducks	Challenge	
Bovine Viral Diarrhoea	Cattle	Challenge	
Classical Swine Fever	Pigs	Challenge	
Infectious Bursal Disease	Chickens	Challenge	
Infectious Bronchitis	Poultry	Disease	
Newcastle disease	Chickens / Turkey / Game Birds	Challenge	
Porcine Reproductive and Respiratory Syndrome	Pigs	Challenge	
Schmallenberg	Sheep	Challenge	
Swine Influenza	Pigs / Ferrets	Challenge	

The stock of our challenge models can fluctuate. Please contact us for further details as availability can be limited and subject to the relevant licences. New models can be developed to meet the needs of our customers.

- Colonisation / Persistence / Pathogenesis
- ◆ Colonisation plus use of antimicrobials
- ▲ May require new Home Office license, advance notice needed

If you cannot see what you require please contact us to discuss your requirements. New models can be developed to meet the needs of our customers.





Animal &
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Agency



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APHA Scientific is the commercial department of the Animal and Plant Health Agency (APHA), which is an executive agency of the Department for Environment, Food and Rural Affairs (Defra) to safeguard animal and plant health for the benefit of people, the environment and the economy.

