



Animal &  
Plant Health  
Agency



# VETQAS Newsletter

## Proficiency Testing Service

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Meet the team

Important update - Stay in touch our contact details are changing!

#### Email Address

All UK Government email addresses are changing please note the .gsi has been removed from all APHA email addresses. Please update your address book, our new email address is:

[vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk)

Please start using our new email address now. Both addresses will work for a short period of time but the old domain will be turned off in March 2019.

#### Phone Number

VETQAS also have a new telephone number. Please update your records, the new phone number is:

03000 600003

Both the old and new number will be answered by our friendly team.



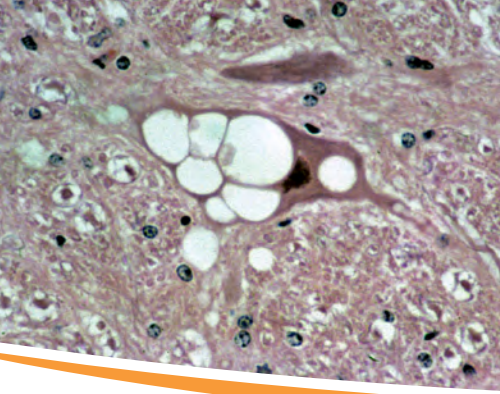


Image far left :

Bovine Spongiform Encephalopathy (BSE), Histopathology stained section.

## Transmissible Spongiform Encephalopathies (TSE)

### What are TSEs?

Transmissible spongiform encephalopathies (TSEs) also known as prion diseases, are a group of fatal neurodegenerative diseases that affect animals and humans.

### Diseases include:

- Scrapie in sheep and goats,
- Bovine spongiform encephalopathy (BSE) or 'mad cow disease' in cattle,
- Chronic wasting disease (CWD) in deer,
- Feline spongiform encephalopathy (FSE) in cats,
- Variant Creutzfeldt-Jakob disease (vCJD) in humans.

The diseases are characterised by a progressive degeneration of the brain with the appearance of sponge-like (hence spongiform) holes, or vacuoles in the brain.

### Clinical signs include:

- Changes in behaviour, increased nervousness and aggression,
- Skin irritation with scratching, and
- Changes in posture and gait with progressive incoordination and weakness.

### What causes TSEs and how are they transmitted?

TSEs are, by virtue of their name, transmissible or infectious. This means they can be passed from animal to animal. However, unlike other infectious diseases, the infectious agent is not a bacteria or virus. Instead, the main (if not only) part of the infectious agent is prion, which is thought to be an abnormal form of the cellular protein PrP. This is also known as the prion protein. This abnormal form of PrP (PrP<sup>Sc</sup>) stimulates the conversion of normal PrP<sup>C</sup> to PrP<sup>Sc</sup>. This increases the levels of PrP<sup>Sc</sup>, especially in the brain and central nervous system, and leads to the development of the disease.

Both scrapie and CWD are known to be readily transmitted within flocks and herds, although the exact mechanism is not fully understood. It is thought that the likely source of infection is the contamination of pasture by placental tissue, urine and faeces. In contrast, BSE is thought to have been transmitted through the consumption of contaminated foodstuffs, in the form of meat and bone meal (MBM). The use of MBM has since been banned and the number of BSE cases has significantly reduced.

### How is TSE diagnosed?

Currently, the only statutory means of diagnosing TSE is with the examination of brain tissue at post mortem, with the accumulation of PrP<sup>Sc</sup> used as a diagnostic marker. PrP<sup>Sc</sup> can be detected using IHC or biochemical analyses such as Western blots and ELISA. Vacuoles in the brain also confirm the presence of spongiform change.

### BSE – a risk to human health?

The BSE epidemic in the 1980s and the subsequent emergence of novel TSE disease in humans (vCJD) in the mid-1990s prompted the need to confirm a link between the two diseases. Experimental studies, using mice, demonstrated such a link which fuelled speculation that the consumption of BSE-infected beef products was responsible for transmitting BSE to humans. Although the experimental link has been made, it should be noted that the number of cases of vCJD, remain low with only 178 cases in the UK to date, compared to approximately 180,000 cases of BSE.

### Glossary

PrP <sup>Sc</sup>	PrP-scrapie is an abnormal form of PrP.
PrP <sup>C</sup>	The normal cellular form of PrP.
Diagnostic marker	A detectable protein that indicates disease
IHC	Immunohistochemistry is a histological technique that detects the presence of disease markers within tissues by using antibodies.
Western blot	A biochemical technique that detects proteins using antibodies following separation by gel electrophoresis.
ELISA	Enzyme-linked immunosorbent assay is a diagnostic test that can be used to detect disease markers using antibodies.

**For further information on our TSC Proficiency Testing Schemes please click the links below**

[PT0124 BSE Rapid Tissue Test](#)

[PT0135 PrP Immunohistochemistry Technical](#)

[PT0094 Scrapie blood genotyping](#)

[PT0125 Scrapie Rapid Tissue Tests](#)

**If you are interested any of these schemes please call +44 (0)3000 600003 or email [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk)**



# APHA Scientific - EAVLD Silver Sponsor

**APHA Scientific was a proud sponsor at the 5th European Association of Veterinary Laboratory Diagnosticians Congress (EAVLD) which was held on 14th-17th October 2018 in Brussels.**

EAVLD brings together over 300 delegates from across the globe and is a major scientific veterinary event. We really enjoyed exhibiting as it was a fantastic opportunity for our team to meet with you in person and exchange views and knowledge.

Thanks to everyone that took part in our competition. We gave delegates the chance to examine a series of slides, to see if they could recognise Anthrax (*Bacillus anthracis*). We are pleased to congratulate Edward Leslie, who won himself a Samsung tablet. Edward was one of two entries that correctly identified *B. anthracis* in all of the slides. His name was picked at random from the winning entries.



**Image:** APHA Scientific stand with Mei-an Sung BDM for Biological Reagents (left) and Paula Johnson Head of the Quality Assurance Unit (right)

**The competition proved to be a challenge for many, so why not consider taking part in our twice yearly *Bacillus anthracis* Proficiency testing scheme (PT00002) contact [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk) for more information.**



## EAVLD Board

**Head of APHA Scientific, Nick Coldham has recently been elected to the Board EAVLD**

During the recent EAVLD congress in Belgium an election took place to find suitable replacements for vacancies. We are proud that Nick was elected as new board member. The Board is responsible for managing and controlling the affairs and property of the EAVLD.

Nick is Head of APHA Scientific and deals with the commercial activities of the agency including VETQAS proficiency testing unit, veterinary diagnostic reagents and promotion of intellectual property from research activities.

## Order 2019-20 PT Schemes online now.

### Online ordering for 2019-20 contract year available now.

Participants enabled for online ordering please click here and use your existing username and password to order your PT schemes.

If you are a new customer, not yet set up for online ordering, need a reminder of your username or password or if you require help please email us on [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk).

Once your online order is approved by VETQAS, an invoice will be issued. Full details of how to pay are included on the invoice. See our terms and conditions.

Click here  
to order  
online



## New PT Schemes

We are delighted to announce that in 2019 we have added new Proficiency Testing schemes onto our price list. These schemes are:

PT0081 Rabies Antibody Serology  
PT0073 Newcastle Disease

**Further information on these or any of the VETQAS Proficiency testing schemes please contact:**

**+44 (0)3000 600003 | [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk) | [www.vetqas.com](http://www.vetqas.com)**

Click here  
to view our  
price list

## Appeal for Sourcing Material

**The VETQAS Quality Assurance Unit sources materials from wide range of organisations to make our Proficiency Testing possible. We are finding that positive material is becoming scarce as disease management becomes more effective. The materials (positive sera) we are particularly keen to source are those for the following diseases or pathogens:**

- Bluetongue virus – antibody positive serum from vaccinated animals, all serotypes
- Ears from persistently infected BVD positive cattle
- Contagious Bovine Pleuropneumonia (CBPP) antibody positive serum
- African Swine Fever antibody positive serum (PCR negative)
- Transmissible Gastroenteritis antibody positive serum
- Maedi visna/CAE antibody positive serum
- Glanders antibody positive serum
- African Horse sickness antibody positive serum (PCR negative)
- Equine Infectious Anaemia antibody positive serum (PCR negative)
- Equine Viral Arteritis antibody positive serum (PCR negative)
- Babesia caballi antibody positive serum (+ve for CFT/IFAT/cELISA)
- Brucella canis antibody positive serum
- Ehrlichia canis antibody positive serum

**If you have such material available, please contact us on: [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk) or call +44 (0)3000 600003.**





## APHA Scientific at the British Equine Veterinary Association congress

**APHA Scientific has returned for a successful exhibition at the BEVA Congress. The event took place in Birmingham International Conference centre and was held on the 12-15th September 2018.**

BEVA is a world leading equine veterinary association with over 2,700 members globally. The annual Congress is the largest equine veterinary conference in Europe and attracts more than 1,200 visitors.

APHA work in partnership with BEVA to encourage compliance with The Horserace Betting Levy Board Code of Practice for the testing of Contagious Equine Metritis Organisms. Laboratories that are part of the BEVA registered laboratory testing scheme have all successfully participated in the VETQAS proficiency schemes run in conjunction with BEVA.

### Equine VETQAS® Proficiency Testing

#### Equine specific PT schemes:

<b>PT0001</b>	African Horse Sickness (AHS)
<b>PT0046</b>	Equine Infectious Anaemia (EIA)
<b>PT0047</b>	Equine Viral Arteritis (EVA)
<b>PT0049</b>	Glanders
<b>PT0175</b>	Streptococcus equi subs equi (Strangles)
<b>PT0106</b>	Theileria (Babesia) equi

<b>PT0112</b>	Trypanosoma equiperdum (Dourine)
<b>PT0134</b>	Equine microbiology
<b>PT0102</b>	Taylorella equigenitalis
<b>PT0104</b>	Taylorella / Klebsiella / Pseudomonas
<b>PT0103</b>	BEVA Taylorella / Klebsiella / Pseudomonas
<b>PT0161</b>	BEVA CEMO

### Equine Research and Development

**APHA scientists have a wealth of experience of in-vitro and in-vivo techniques and can work on a wide range of organisms, our expertise in equine diseases includes;**

- Equine Viral Arteritis
- West Nile Encephalitis
- Equine Infectious Anaemia
- Equine herpesviruses
- Equine influenza

### Equine Lab Testing

**APHA Scientific offers a complete testing, advice and support service for the diagnosis, control and prevention of diseases in equids.** Our specialist teams perform tests under a comprehensive quality assurance system. Many of the tests are accredited to ISO 17025.

#### Equine specific tests:

<b>TC1159</b>	Equine infectious anaemia (Coggins)
<b>TC0725</b>	Equine influenza nucleoprotein
<b>TC1136</b>	Equine rhinopneumonitis (EHV-1, EHV-4)
<b>TC1247</b>	Equine viral arteritis (EVA)
<b>TC0046</b>	Equine Viral Arteritis RT PCR in semen
<b>TC0550</b>	Equine viral arteritis virus isolation in tissue culture
<b>TC1126</b>	Glanders
<b>TC0256</b>	Haematology - Parasitological examination of a blood smear
<b>TC0831</b>	Influenza A virus (equine)
<b>TC0447</b>	Leptospira australis
<b>TC0450</b>	Leptospira bataviae
<b>TC0451</b>	Leptospira bratislava
<b>TC0462</b>	Leptospira pomona
<b>TC0465</b>	Leptospira tarassovi
<b>TC1282</b>	Salmonella abortus equi

<b>TC0687</b>	Taylorella equigenitalis (CEMO) & T.asinigenitalis
<b>TC0287</b>	Taylorella equigenitalis (CEMO) & T.asinigenitalis: pooled test (up to 4 samples)
<b>TC0028</b>	Taylorella equigenitalis (CEMO) for International Trade
<b>TC1226</b>	Theileria equi and Babesia caballi
<b>TC1221</b>	Theileria equi and Babesia caballi
<b>TC0661</b>	Theileria equi and Babesia caballi
<b>TC1222</b>	Trypanosoma equiperdum (Dourine)
<b>TC1227</b>	Trypanosoma equiperdum (Dourine)
<b>TC1487</b>	Trypanosoma evansi (Surra)
<b>TC0739</b>	West Nile virus
<b>TC0868</b>	West Nile Virus (WNV) IgM Ab detection ELISA for use with equine serum
<b>TC0869</b>	West Nile Virus (WNV) total Ab detection cELISA for use with equine serum
<b>TC0874</b>	West Nile Virus RNA - equine

# Up and Coming PT Schemes- Current Contract year (2018-19)

**Reminder - The schemes listed below all have a distribution date starting in March.**

We might already be talking about next contract (2019-20) year but don't forget it is not too late to sign up for the last few schemes in the current contract year (2018-19). Click here to order our Proficiency Testing schemes, using the password and user name that were emailed to you, when your account was first set up.

**If you would like further information on these or any other Proficiency Testing Schemes please call +44 (0)3000 600003 or email [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk)**

## **PT0003 Aujeszky's disease**

ELISA / SNT - serum, 12 Mar ▲◇

## **PT0138 Blue Tongue Virus (BTV)**

ELISA - serum, 19 Mar ▲●

## **PT0036 Classical Swine Fever (CSF)**

ELISA / SNT - serum, 12 Mar ▲

## **PT0045 Enzootic Bovine Leukosis (EBL)**

ELISA / AGIDT - serum, 19 Mar ▲

## **PT0042 Ehrlichia Canis**

IFAT - Serum, 19 Mar ●◇

## **PT0139 Foot & Mouth Disease (FMD) Eurasian strains**

ELISA / VNT - serum, 19 Mar ▲

## **PT0054 IBR / PI3 / RSV**

ELISA - serum, 19 Mar ▲

## **PT0053 Infectious Bovine Rhinotracheitis (IBR)**

ELISA / SNT - serum, 12 Mar ▲

## **PT0055 Infectious Bronchitis Virus avian**

HAIT - serum, 26 Mar ▲

## **PT0076 Porcine Parvovirus (PPV)**

ELISA / HAIT - serum, 19 Mar ▲

## **PT0077 Porcine Reproductive & Respiratory Syndrome (PRRS)**

ELISA / IPMA - serum, 12 Mar ▲

## **PT0050 Haematology - Ruminant blood**

Blood cell counts, 26 Feb, 26 Mar ▲

## **PT0111 Trichinella spiralis**

Enumeration in post digestion filtrate, 26 Mar

## **PT0114 Worm egg count**

WEC - faeces, 26 Mar ▲

## **PT0063 Bone in animal feed**

Microscopic examination, 26 Mar

## **PT0002 Bacillus anthracis**

Microscopic exam of blood, 26 Mar ▲

## **PT0008 Bacterial diseases in cold water fish**

Isolation & ID of fish pathogens, 5 Mar

## **PT0025 Brucella abortus - slides**

Stain & ID, 26 Mar ▲

## **PT0040 E.coli**

Serotyping, 5 Mar ▲

## **PT0134 Equine microbiology**

Isolation & ID of equine pathogens, 5 Mar ▲

## **PT0061 Microbiology - farm animals**

Isolation & ID of animal pathogens, 5 Mar ▲

## **PT0126 Mycoplasma hyopneumoniae**

Culture, 5 Mar

## **PT0026 Staphylococci - including MRSA**

Culture & ID - sim. clinical specimen, 5 Mar ▲

### Key

▲	Accredited by UKAS to ISO/IEC 17043
●	New or updated proficiency testing schemes
◇	Subject to availability and changes to distribution date





# Rabies

## What is Rabies

Rabies is an encephalitis caused by the rabies virus, a member of the rhabdovirus family. It is an acute viral infection that is almost invariably fatal once symptoms develop.

Transmission is generally through the bite of an infected animal, usually dogs, but also cats, bats and other wildlife. A course of rabies vaccination can prevent infection and death.

## The impact of rabies

Despite the availability of highly effective vaccines, rabies is estimated to cause at

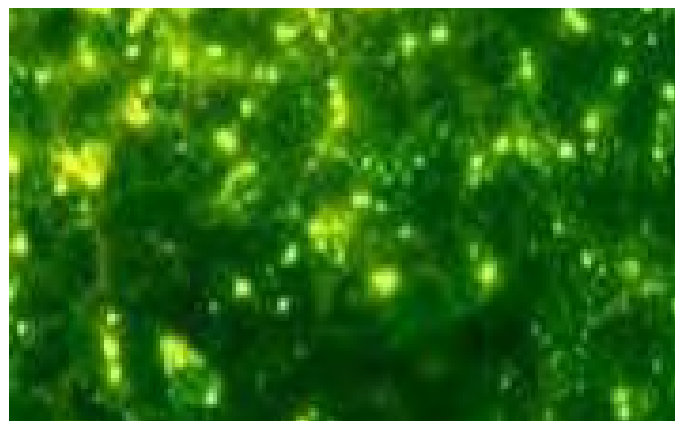
least 59,000 human deaths a year worldwide. On average 100 children die of rabies every day. The global disease burden exceeds \$8.6 Billion and yet it is a neglected disease of low income countries.

Whilst the UK is free from canine rabies, a small proportion of UK bats are infected with related viruses (European bat lyssavirus -1 and -2). Since surveillance started at APHA Weybridge in 1987 more than 20 cases of rabies have been detected in UK bats.

## The APHA Rabies Laboratory at Weybridge is:

- the UK Reference Laboratory for Rabies,
- an International Reference Laboratory for Rabies (OIE, World Animal Health Organisation)
- an EU-approved laboratory for rabies serology.
- a UKAS accredited testing laboratory No. 1769

The rabies tests undertaken by APHA are accredited to ISO/IEC 17025 ensuring the highest level of quality assurance.



Rabies Proficiency Testing Scheme is now available to all customers

### PT0051 Rabies Antibody Serology

Suitable for neutralising and total antibody detection assays such as FAVN, RFFIT and ELISA

Distribution dates 17 Sep 2019, 17 Mar 2020

For further information please visit our online price list

**If you are interested in this scheme please contact:**

**+44 (0)3000 600003**

**or email [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk)**

# Staff Spotlight - 60 Seconds with...

## What is your name?

Neil Briggs

## What is your role at VETQAS?

I am a Laboratory Manager, responsible for overseeing the daily duties of the lab team within the VETQAS QA Unit including sample production and packaging and general laboratory manager roles.

## What is the most satisfying part of your job?

Ensuring that all our work is completed to a high standard and that our customers receive the best possible quality service.

## If you could do any other job what would you be?

It would be a toss-up between a fighter pilot or a quality control manager in a real ale brewery!

## What was your first ever job?

My first ever job was a paper boy, rising at the crack of dawn to complete a round in my village in all weather for a pittance of pay, it was definitely character building.

## What would you most like to tell yourself at age 13?

Don't get a paper round!

## What is the strangest job you have ever had?

The strangest job I ever had was performing crop analysis as part of summer job working at the local agricultural college, this involved hours of meticulously dissecting the crops, weighing them and running them through machines to measure the green leaf area. The worst part was the chafing on my legs from constantly walking through fields of wheat wearing only shorts.

## What is your proudest achievement?

Definitely my children, oh and completing a half marathon and a 24 hour duathlon.

## What does your ideal weekend involve?

My ideal weekend would involve watching a live sports event, either a rugby, football or cricket match (I don't partake anymore), spending time with my family, and rounding the day off with a tasty curry.

## What is your personal philosophy?

My personal philosophy is "never give up", it's something I try to instil in my children.

## Where is your favourite place?

I really enjoyed Prague when I visited there recently, I especially loved learning about the history and I visited the Church of Saints Cyril and Methodius where the Czech soldiers who assassinated Reinhard Heydrich during Operation Anthropoid were cornered.

## If you could spend an hour with a famous person who would it be and why?

It would have to be Sir Winston Churchill, a great man and leader, who had the courage of his convictions. He also coined some great motivational quotes and he had a wicked sense of humour. I would just enjoy listening to him sharing his experiences.

## What one thing could you not live without?

Beard oil.



## What is the best book you have ever read?

Any of the books from the Jack Reacher series.

## If you were stranded on a desert island what 3 things would you take with you?

Jack Reacher books, my Swiss army knife and a teleportation device so I could leave when I got bored.

## Tell us something that might surprise us about you?

I have dislocated my arm on 3 separate occasions, and it doesn't get any less painful each time.





## Biological Reagents

**We provide high quality veterinary diagnostic reagents and test kits for effective and reliable laboratory testing. Our wide range of antisera, antibodies and diagnostic tests, targets bacterial and viral pathogens found in common livestock such as:**

- Avian Influenza
- Bovine Viral Diarrhoea
- Brucella
- Escherichia coli
- Infectious Bronchitis
- Infectious Bursal Disease
- Maedi-Visna
- Mycoplasma
- Newcastle Disease
- Salmonella

Manufactured in dedicated reagent production units certified to ISO 9001 quality standards, we serve customers worldwide, including national and international reference laboratories. Cell lines, control sera and culture collection are also available.

For more information please contact  
**+44 (0)3000 600001 | [salesdesk@apha.gov.uk](mailto:salesdesk@apha.gov.uk) | [aphascientific.com](http://aphascientific.com)**

## VETQAS Handy Hints

Need help understanding our abbreviations on your Proficiency Testing reports? We hope the glossary below will help...

<b>+ve</b>	<b>Positive</b>
<b>-ve</b>	<b>Negative</b>
<b>IC</b>	<b>Inconclusive</b>
<b>S+ve</b>	<b>Strong positive</b>
<b>M+ve</b>	<b>Medium positive</b>
<b>W+ve</b>	<b>Weak positive</b>

## APHA Scientific

**Did you know we offer other products and services as well as our Proficiency Testing. The Animal and Plant Health Agency (APHA) are a world leader for its expertise and knowledge in animal and plant health. APHA Scientific is the commercial department of APHA. Our products and services available include:**

- Biological reagents and test kits
- Proficiency testing for veterinary laboratories (VETQAS)
- Wildlife management and radar detection
- Laboratory diagnostic testing
- Vaccine development and testing
- Virus discovery
- Pathology and bio-imaging
- Bacterial identification and characterisation
- Bacterial Culture Collections
- Veterinary research and development
- Access to Animal and Plant Health Agency intellectual property through licensing.

**For more information about any of our services please contact  
03000 600001 or email [aphascientific@apha.gov.uk](mailto:aphascientific@apha.gov.uk)**

**APHA SCIENTIFIC**

## PT0010 - BVD Ag/PCR.

Following feedback from participants on the preferred test matrix, VETQAS are working to determine if a change to serum from heparin blood is feasible. We are planning to have testing completed before the June 2019 distribution and participants of this scheme will be informed of progress by email. Should you wish to join this scheme as a new participant please contact us at [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk) and we will add you to our contact list for future updates.

## PT0073 – Newcastle Disease antibody.

We are pleased to announce that we are able to add Newcastle disease antibody by HAIT to the price list. If you would like to order this scheme and you are set up for online ordering please click the orange icon to the right. Alternatively email [vetqas@apha.gov.uk](mailto:vetqas@apha.gov.uk)

Click here  
**to order  
online**

# Introduction to new members of the team



## Emma Gurney

### Scientist

After completing a BSc in Bioveterinary Science and having always had a passion for science and animal welfare; I began my APHA journey in 2015 starting as an Egg Marketing Inspector at APHA Worcester.

As time went on I realised that I wanted to expand my skills at applying science and welfare to agriculture I changed careers to work for the University of Nottingham on a sheep lameness project, this involved a great deal of field work and sheep handling as well as getting my head around new technologies. During this role I got my name on a published paper for the first time and decided to pursue a master's degree in animal welfare, ethics and law.

I have an unwavering love of animals fuelled more by my recent volunteering work in Zimbabwe and my 4 beautiful bunnies at home.

Having now finished my master's I look forward to furthering animal welfare research while enjoying the challenges and learning I will undertake at the VETQAS Quality Assurance Unit.



## Nick Coldham

### Head of APHA Scientific

Nick Coldham is the new Head of APHA Scientific which covers the commercial activities of the APHA including VETQAS our Proficiency Testing service. Nick started working at the agency in 1993 and has worked in a several different science departments; previously he was Head of Bacteriology and Specialist Scientific Services.

Before APHA he worked at St. Mary's Hospital Medical School in Paddington, London where he studied the steroid metabolism of breast tumours and gained a PhD from Imperial College. Nick has research experience in mass spectrometry as applied to proteomics, metabolomics, and antimicrobial resistance of zoonotic veterinary pathogenic bacteria and currently leads the validation team which evaluates new veterinary diagnostics for the agency. He hopes to further exploit the great depth in veterinary expertise at the APHA by expanding our VETQAS Proficiency Testing service for disease prevention and control to the benefit of all our customers. Over the summer months he is a keen cyclist and has enjoyed several cycling holidays in Majorca.



## Amy Lord

### Administration Officer

Prior to joining APHA, I worked as a civil servant for 11 years at the Ministry of Justice. Leaving in 2013 to join Marks and Spencer, as a Finance / Admin assistant, where I've worked for 5 years.

I have two children, ages 15 and 13 and two boxer dogs - so I'm kept very busy. In my spare time I volunteer for Cancer Research and help out at my local shop in Loughborough. Me and my husband enjoy renovating houses and normally have a project on the go!

## Import Permits

It is the responsibility of the participant to check with their customs authority if an import permit is required for them to import VETQAS PT samples.

If a permit is required, we must receive a valid copy of the permit before the scheduled distribution date. When required, if we do not receive a permit in time for the distribution date, the samples will not be shipped and there will be no refund.