

NATIONWIDE LABORATORIES SUMMER NEWSLETTER

YOUR TRUSTED LAB EXPERTS

VETERINARY PRESS

British Society of Veterinary Pathology awards NationWide Laboratories the first prize for green lab competition

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A case of cutaneous mast cell neoplasia in a ferret by Sandra Dawson BSc BVMS FRCPath MRCVS

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Trichofolliculoma in a guinea pig by Sandra Dawson BSc BVMS FRCPath MRCVS

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Squamous papilloma with squamous cell carcinoma in a gerbil by Sandra Dawson BSc BVMS FRCPath MRCVS

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Latest innovations in digital pathology by Andrew Pritchett BSc (Hons) and Improve Veterinary Practice

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Digital pathology: taking veterinary diagnostics to the next level by Kerry Freel BVMS GPCert (SAS) FRCPath MRCVS

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Message from David Charvill

Dear friends,

Welcome to our newsletter! As a company we are passionate about what we do, customer focused and always advancing. But what makes me really proud is our people. We have the broadest skill base of highly qualified pathologists, laboratory scientists and customer service experts, and our investment programme ensures that we have capacity and technical capabilities to guarantee successful partnerships with veterinary practices, universities, research institutions, pharmaceutical companies, healthcare providers and other organisations. Since BSAVA our teams have done a lot to make it easier for you to work with us. We launched a new more modern and user-friendly website; we are getting ready to roll out our new online customer portal; we are moving forward with our new NVS Group brand identity which will bring you exciting propositions; we are championing sustainability in the veterinary profession and offering you engaging CPD content. Thank you for your custom.

David Charvill,
Director of Laboratory Services



Launch of NVS Group



NVS Limited (NVSL), the UK's leading provider of animal health products and services, is excited to unveil a new group identity - NVS Group. A strategic move that represents the group's evolution, growth, and commitment to delivering a positive difference to animal health through the highest quality services and products. The branding includes a new group name, visual identity, and strapline that reflects the group's shared values and vision – "Delivering excellence in animal health".

NVS Group unifies the four brands: National Veterinary Services (NVS), Select from NVS, NationWide Laboratories (NWL), and VetIT as a cohesive family and offers veterinary practices an end-to-end service; through the wholesale supply of medicines, products and consumables to laboratory services and industry-leading practice management software.

"We are thrilled to introduce the NVS Group brand identity," said Martin Riley, MD. "This new group identity emphasises our commitment to supporting veterinary practitioners with everything they need to run an efficient practice. Customers can trust the NVS Group to be a reliable partner who is committed to service excellence, which can help free up their time to concentrate on what they do best - delivering exceptional animal care".

The roll-out of the new NVS Group brand identity commenced in June 2023. However, it's important for customers to note that there will be no changes to the individual identities of the four brands that form NVS Group. Each will preserve its own unique and established brand recognition.

With over 40 years of industry experience and a proven track record, NVS Group offers customers a single point of contact for all product, software, diagnostic and testing needs. Customers are welcome to choose to work with just one element of NVS Group, or use the services of all four, being assured that they will receive the same tried and trusted, industry-leading level of service that ensures we deliver excellence in animal health.

ERYTHROPOETIN (EPO) analysis for canine and feline samples

NationWide Specialist Laboratories is pleased to offer a service for the **analysis of Erythropoietin (EPO)**.

EPO plays a key role in the regulation of red cell mass and erythrocyte production. EPO may be used to aid the differential diagnosis of polycythemia and non-regenerative anaemia. Raised levels of EPO occur in secondary polycythemias and renal tumours. Low/normal levels may occur in renal failure and polycythemia vera.

Sample requirement is 0.5mL separated serum. For further enquiries, please ring 01223 493400

ABOUT NVS GROUP



NVS Group (formerly known as NVS Limited) is the UK's leader for veterinary products, software and laboratory services. NVS Group aims to support veterinary practitioners with everything needed to run an efficient practice through trustworthy delivery and unrivalled customer service.

NVS Group encompasses National Veterinary Services, the market leader in veterinary wholesaling and distribution; Select from NVS, a range of veterinary consumables sold exclusively by NVS; NationWide Laboratories, a UKAS accredited diagnostic laboratory with a comprehensive portfolio of tests and profiles, world-class expertise in veterinary pathology and personal service aimed at helping practices to successfully achieve their diagnostic and therapeutic objectives; and VetIT, the high-quality practice management software solution for digital practice efficiency.

NVS Group employs more than 700 people in their head office and main warehouse in Stoke-on-Trent, eleven depots across the UK, three laboratory sites in Poulton-le-Fylde, Cambridge, and Newton Abbot, and software development headquarters in Malmesbury.



Or visit

www.nvsweb.co.uk/nvsgroup

<https://nwlabs.co.uk/>

<https://www.vetit.co.uk/>

SDMA ASSAY

This assay has been validated against Liquid Chromatography – Mass Spectrometry method which is the Gold standard. This is an immunoturbidimetric assay and has been validated for dogs, cats and horses. Li-hep plasma or serum are suitable samples for this assay. **THE RESULTS ARE AVAILABLE SAME DAY.**

Your territory managers



Mel Whittaker
Head of Sales South

I'm the Head of Sales South at NationWide Laboratories as well as NVS. As a group we aim to support veterinary practitioners with everything they need to run an efficient practice through comprehensive and reliable laboratory diagnostics, leading veterinary wholesale products and consumable supplies as well as personal customer service. So, whether you are a member of a buying group, or an independent practice, you can take advantage from our customized offers, UK-wide distribution network, scientific expertise and much more. We work in partnership with every client, helping them to provide exceptional care and run a successful business.

I'm the Head of Sales North at NationWide Laboratories and NVS, helping practices fulfil their healthcare and business objectives with the support of the UK's leader for veterinary wholesale, consumables, software, and laboratory services. We offer a complete laboratory diagnostics package for all types of practices. Our portfolio of veterinary tests is available for companion, equine, exotic, and farm animals with full interpretation in a range of testing areas. Our clients provide care knowing that they are supported by a trusted, reliable partner committed to delivering excellence in animal health.



Nik Watson
Head of Sales North



Hannah Pinnock
Territory Manager

I'm a Territory Manager at NationWide Laboratories as well as NVS. I have worked for NationWide Laboratories for a number of years now, so bring experience and knowledge to our customers and prospect customer meetings. Choosing a laboratory is not an easy task, but what makes me confident about our offering is that NationWide Laboratories has the support from the leading UK wholesaler. We work with all Buying Groups in the UK to provide fantastic discounts to our customers. We integrate with multiple PMS systems to support easy sample submission, including our price file, submission form and integrated results onto client files. But what's most important, we offer a personal service and a helping hand to all our clients, becoming part of your practice team. Being an independent laboratory, we are in a great position to support both independent veterinary practices and those just starting up.



Let's Talk About Thyroid



Where is it located?

The thyroid gland is in the middle region of the neck, near the larynx. In dogs it is found on both sides of the trachea. It is a highly vascularized gland, compact and reddish in colour.

What is its function?

The thyroid is an endocrine gland, it secretes hormones into the bloodstream. The main function of the thyroid is the production of the thyroid hormones thyroxine (T4) and triiodothyronine (T3). The synthesis and secretion of thyroid hormones is mainly regulated by the thyroid-stimulating hormone, TSH, also called thyrotropin.

Functions of the thyroid hormones

The functions of thyroid hormones can be described in 3 categories: functions in cell differentiation and growth, effects on metabolic pathways, and specific effects on organs and systems of the body.

Pathologies associated with the thyroid gland

Hypothyroidism is common endocrine disease seen in dogs and is occurs when the thyroid glands fail to produce adequate amounts of the hormones thyroxine (T4) and triiodothyronine (T3). Primary hypothyroidism is the most common presentation, usually resulting from idiopathic thyroid gland atrophy or immune-mediated lymphocytic thyroiditis. Uncommon causes of canine hypothyroidism include congenital disease resulting from dysmorphogenesis of thyroid hormone, abnormal thyroid-stimulating hormone (TSH) production, or abnormal thyroid gland development. Neoplasia is a rare cause. In primary cases, the total T4 is low and the TSH is high. Occasional cases will have low total T4 and normal TSH. Free T4 by equilibrium dialysis (FT4D) may then be required to add further information on thyroid function. Thyroglobulin autoantibodies (TGAA) can also be measured and will give information

Your territory managers



Wendy Phelan
Territory Manager

I'm a Territory Manager at NationWide Laboratories as well as NVS. I look after our clients offering them services and supplies to run an efficient veterinary practice. We know that rapid reliable laboratory results will help practitioners to reach the diagnosis quickly. Over 50% of our tests are turned round in 24 hours. We can pick up the samples overnight and return the results the following day. Our clients get comprehensive reports with a full interpretation and recommendations where applicable. They know that they are supported by an experienced, trusted and reliable partner. And it is this feeling of true partnership that makes my job really rewarding!

Your trusted lab experts

I'm a Business Development Manager at NationWide Laboratories. I am proud to say that the scope of our work extends well beyond general diagnostics. Our extensive resources and expertise enable us to successfully carry out research work for multiple clients, offering quick turnaround times and a flexible approach throughout a range of customised projects. We can offer a complete histopathology service, any type of esoteric assay procedures, digital slide scanning service and much more. So, if you are interested in efficient and reliable laboratory support for your project, please reach out to us and our expert team will assist you.



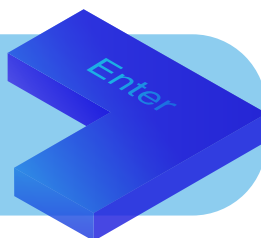
Andrew Pritchett
Business Development Manager



Marvin Firth
Anatomic Pathologist

I'm an Anatomic Pathologist at NationWide Laboratories. We work with a large variety of samples from companion, exotic and farm animals, which is really interesting. Everyone in our pathology team has their area of specialisation, so when a complex case comes in our clients can be absolutely certain that they have the best people looking at it. What makes my job most rewarding is the interaction with our clients. As a pathology team we always take the phone calls and talk to the practitioners about the case because we know that there is animal's health and wellbeing at stake.

Leave us a review and get a surprise goodie bag! Hurry up, only 3 are available for the first 3 entries!



Let's Talk About Thyroid

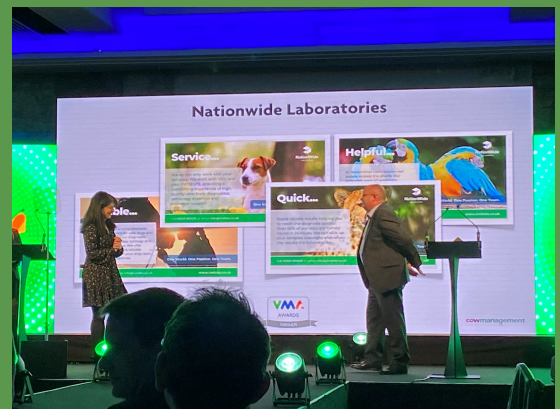


on thyroid pathology and the presence of auto antibodies that may interfere with total T4 measurement. In contrast, hyperthyroidism is a common endocrine condition in older cats. It is usually caused by hyperplasia of the thyroid gland. Neoplasia is a less common cause. Total T4 is produced in excess and is high. TSH may be low due to excess Total T4 suppressing TSH production.

Conclusion

The thyroid gland plays an important role as a producer of thyroid hormones, which are necessary for cell differentiation and growth of the organism. The proper functioning of metabolic pathways depends on these hormones, which have specific effects on different organs, maintaining homeostasis among all tissues. Credit: **Deborah De Pablos and Dr Stacey A Newton BVSc FRCPath CertEM (Int Med) PhD MRCVS**

WOW WE WON

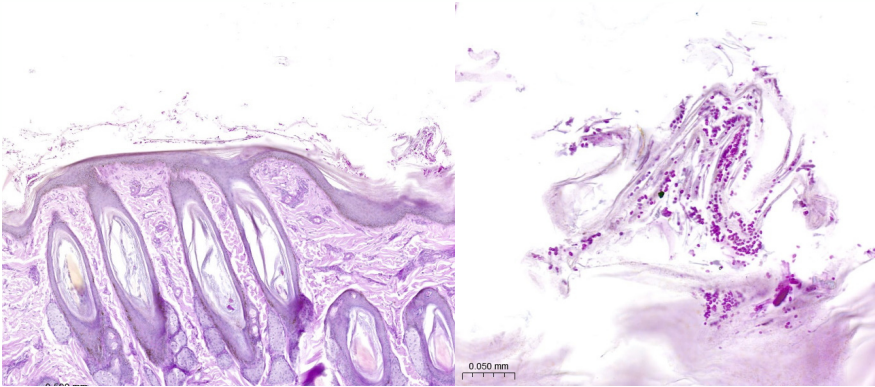


We are really proud and grateful to the esteemed panel of the Veterinary Marketing Association for awarding our marketing team for raising awareness of the great job our laboratories do to help the vets provide the best possible service for the animals in their care. Click below to have a look at our winning entry.

[CLICK HERE](#)



DIGITAL CASE OF THE MONTH, JUNE: Malassezia sp organisms within keratin of the haired skin of seal



These are digital sections showing abundant, spherical, 2-5µm diameter, PAS positive (special stain) structures consistent with Malassezia spp in skin biopsies from a 2-month-old seal pup that had developed generalised alopecia that was progressing. Whilst the underlying pathogenesis is unsure in this case, NationWide Laboratories is hoping to be able to diagnose what kind of Malassezia spp may be acting as an opportunistic pathogen in this case. As with small animals, Malassezia can appear to thrive when the environment of the skin changes and the skin barrier system is impaired. Hypersensitivity, impaired immune system, keratinisation defects, recurrent bacterial infections, endocrinopathies and chronic physiologic stress can all lead to growth of these yeasts. Digital pathology allows us to accurately visualise, measure and capture these changes and share such images for educational purposes. Credit: **Dr. Marvin Firth BVSc (Hons.), DipRCPath, DipFMS, AFHEA, MRSB, MRCVS**

Let's talk about Cushing's disease

Cushing's disease, also called hyperadrenocorticism, is a hormonal disease, secondary to the hormonal functioning of the adrenal glands. In dogs affected by Cushing's disease, the adrenal glands produce too much cortisol.

Cortisol is a hormone that regulates blood sugar as well as protein and lipid balance. Elevated cortisol in the blood can damage the animal's organs and muscles, leaving the animal in a state of general discomfort.

Symptoms

A dog with Cushing's disease has elevated cortisol in the blood, so the metabolism will be altered.

The most common symptoms are: polydipsia (drinking more than usual), polyphagia (eating more than usual), tiredness, hair loss...

How to diagnose Cushing's disease

To diagnose Cushing's disease it is necessary to look at the functioning of the adrenal glands, injecting ACTH (Adrenocorticotrophic Hormone) and measuring the cortisol in the blood, before and after the injection (which in laboratory tests is called Pre and post), a blood and urine analysis is also necessary.

Conclusion

Cushing's disease is a fairly common disease in older dogs. With treatment there is a rapid improvement in the health status of the animal and life expectancy can be extended. Credit: **Deborah De Pablos**

DIGITAL SCANNING SERVICE USING OUR 3DHISTECH PANNORAMIC P1000 RX

NationWide Laboratories is pleased to offer a high speed and high-resolution slide scanning service to professionals and organisations. We guarantee the best quality digital slide scanning solution, using the largest throughput scanner available on the market; the 3DHistech Panoramic P1000 RX scanner. Using our digital slide scanning service gives you all the advantages of digital pathology without the high-cost investment.

Benefits

- The highest resolution scanning available today - 82x water immersion
- Brightfield scanning at resolutions of 20x, 40x, including whole slide scanning
- Z stack and extended focus scanning options available too
- High throughput and quick turnaround service
- Our specialist service allows the highest quality images but without the large file sizes often associated with scanned images.
- Digitisation of slides allows for efficient sharing of images, whether that be with a colleague for preparing for publication or presentation
- Archiving and convenient storage of digital images vs onsite storage of glass allows for centralisation, control and security of your images

Service

- All you need to do is send us your glass slides and in return you will receive the high-resolution digital images either as a cloud storage link or physical hard drive
- 30-day image storage is included; extended image storage options are available
- A range of image types are available
- Low-cost and rapid turnaround service

Contact

andrew.pritchett@nwlab.co.uk to discuss your project and to take advantage of the high-quality slide scanning service!

British Society of Veterinary Pathology (BSVP) awards NWL the FIRST Prize in Green Lab Competition



NationWide Laboratories entered BSVP Green Laboratory 2022-2023 competition with Water Awareness Project. As a veterinary diagnostic laboratory, our company's main aim is to provide diagnostic services to veterinarians, in order to safeguard animal health and by extension, human health. The spread of many zoonoses may be prevented by adequate sanitation and access to clean water. We believe this essential resource should be used with care and efforts made to minimise waste.

Therefore, we decided to try to target the theme of "saving water and raising awareness of the importance of water and water saving" as the focus of our project.

The project consisted of two parts. Part one was to research and implement small changes regarding water use and measure their impact in our laboratory as well as encourage the teams to save water. Part two was to fundraise for the Toilet Twinning charity that provides sanitation and clean water in the developing world.

We installed commercially available devices (water displacement bags for toilet cisterns and tap aerators) to try and reduce water waste. We also conducted an internal campaign to raise awareness of the importance of water and things everyone can do to save it. We measured the water use via our water meter before and after the installation of devices in October 2022, and subsequently before and after an awareness campaign in March 2023.

Based on water meter readings, 69m³ of water was used the month preceding the installation of the water displacement bags (October-November 2022) and 66m³ were used the month subsequent to installation of the bags (November-December). This step was repeated before and after a newsletter raising awareness of water was circulated. The volume of water used the month before this (January-February 2023) was 66m³ and after was 62m³.

Via our cake sale in the laboratories and hamper raffle in our sister company NVS, together we raised £664 for the Toilet Twinning charity. We were able to be "twinned" with 3 toilets and 2 toilet blocks in 5 countries across 3 continents: Kabaya (Democratic Republic of Congo), Zembe (Mozambique), Macuelizo (Honduras), Twin Cox's Bazaar (Bangladesh), and Ishishangolo (Tanzania). The money we raised went towards educational programmes in the developing world that emphasize the importance of hygiene and sanitation and also towards building latrines. We received the following message of thanks from Lorraine Kingsley, Toilet Twinning CEO: "Thank you for your donation. Your donation will enable our partners to work with local communities to build life changing latrines."

We were delighted to be notified that our entry won the first prize and overwhelmed with warm words from Lucy Oldroyd, BSVP Green Team spokesperson: "It was great to see the team make such an effort to go about this work and to enter the competition given how busy you are and how many other demands on your time exist. Congratulations and thank you for promoting sustainability in the profession."

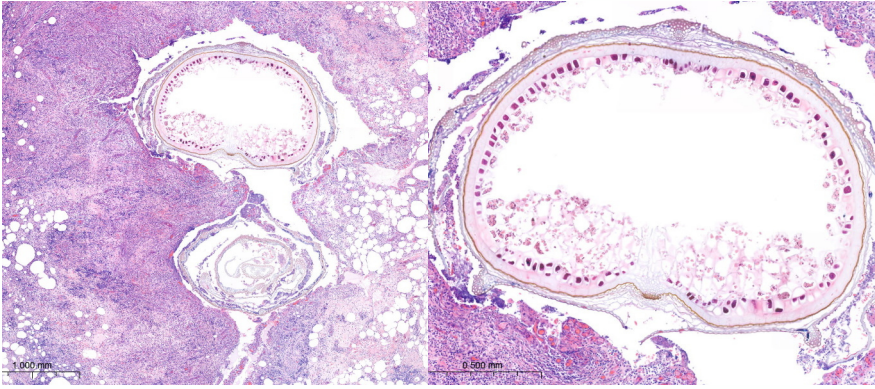
Great British Spring Clean 2023



Plastic Free July



DIGITAL CASE OF THE MONTH, JULY: Grass seed found in mammary tissue of a dog



This was a biopsy from a dog with an ulcerated lesion within the chain of the left mammary glands with soft tissue thickening. Histologically, there is extensive pyogranulomatous inflammation within the dermis that is centred around embedded seed material (with detected intact seed coat, inner integument and endosperm) (as seen in the digital images, H&E). Surrounding the embedded plant material are multiple colonies of bacteria.

This lesion highlights this seasonal issue when looking at soft tissue swellings and inflammation associated with grass seeds and that they can literally end up anywhere! The good news in this case is that there is no noted neoplastic process and that with complete surgical removal, which has been detected in the sections examined digitally, this dog should make a good recovery. Credit: **Dr. Marvin Firth BVSc (Hons.), DipRCPath, DipFMS, AFHEA, MRSB, MRCVS**

SAME DAY PTH

NationWide Specialist Laboratories is offering a SAME DAY service for the analysis of canine, feline and equine parathyroid hormone (PTH). Parathyroid hormone-related protein (or PTHrP) is assayed once a week on Wednesday with results available on Thursday. If you want our RAPID PTH service as well as PTHrP, please submit 2 separate frozen EDTA Plasma samples. PTHrP will continue to be analysed once a week. **For more details, please contact us at 01223 493400.**

GERIATRIC PET PROFILES

Comprehensive testing is recommended for senior dogs and cats, due to the higher risk of underlying disease. There are four main categories of wellness testing for senior pets: **complete blood count, biochemistry profile, urinalysis, and thyroid hormone testing.** Our canine and feline geriatric profiles include a chemistry panel to **evaluate kidney and liver function, antibody and protein levels, blood sugar, cholesterol, electrolytes and more.** For more information, contact us at info@nwlabs.co.uk.

HYDROTHERAPY POOL WATER TESTING

We all know that hydrotherapy in conjunction with veterinary treatment can assist in improving the rate of recovery and healing of animals after injury or surgery. At NationWide Laboratories we can assist you in demonstrating to your clients that your facility meets the guidelines for water safety and quality through our hydro pool testing service, which meets the requirements of hydrotherapy associations such as CHA and NARCH.

We will provide you with the sample bottle, guidance on how to take the sample and prepaid postage to get the sample to us. You will receive a report of printed enumerated results for total viable count at 37 degrees itemising *total coliforms, E. coli, Pseudomonas aeruginosa* and guidance for interpretation. **Simply call 01253 899215 or email info@nwlabs.co.uk for more information.**

Spotlight on our amazing Veterinary Women



The leader who believes change starts at home

"I want to inspire people that I have interactions with and leave them feeling a little bit better"



Sandra Wells

Educating the Future Generation

"I describe my job to the kids in a STEM class that it's like opening a present when you get the slide on the scope."



Sandra Dawson

Helen Campbell and Alina Bodnariu – When colleagues become friends

"I personally believe human connection is a very important thing, at home and at work, when you have friendship, it makes life so much better."



Alina Bodnariu & Helen Campbell

Looking on the bright side of life

"Give people space to talk and vent if they need to. Even if you don't agree with their opinion, there is always a middle ground to be found."



Catriona Bailey



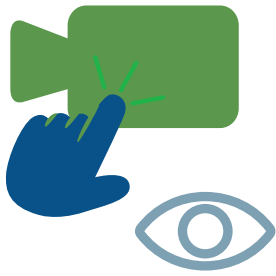
[Click on the pictures to read full articles](#)

CPD content: TOP PICKS



Free on-demand webinar: Small Mammal Pathology Through the Lens of Innovation with Sandra Dawson BSc BVMS FRCPath MRCVS

Small mammals are popular as pets and people are increasingly knowledgeable about their husbandry and care. It is therefore likely that many small mammals will experience a higher quality of life and longer lifespan, meaning that they are more likely to present at veterinary practices for examination in the same way as dogs and cats. At NationWide Laboratories we are compiling data from surgical biopsies submitted to the laboratory. Specially selected cases will be presented using our new slide digitalisation system.



Podcast: "Veterinary Pathology: Back to the Future" with Kerry Freel BVMS GPCert (SAS) FRCPath MRCVS

In this episode of VETChat, Anthony Candwick and Kerry discuss Nationwide Laboratories' new 3DHistech PANNORAMIC® 1000 RX scanner. Kerry shares information on her career to date, they discuss the importance of veterinarians and pathologists working together efficiently and the benefits of strong samples. Kerry explains the new scanner and some of the amazing benefits of working efficiency, including; large magnifications, annotation ability and exactness. She shares how it is useful for second opinions, teaching, and inspiring the new generation in the profession.



Podcast: "From Dermatology to Digital Pathology (Dialogue Between Clinician & Pathologist)" with Trevor Whitbread BSc BVSc DipECVP MRCVS

In this episode of VETChat, Anthony Chadwick and Trevor discuss Trevor's career to date, the partnerships between veterinarians and pathologists, and how the advancement of the digital world has been making this collaboration easier. They share information on how many biopsies should be done, whether dermatology cases should be surgically prepped, and how to find/treat such instances as Demodex. Finally, they discuss pathology's next path with technologies such as digital scanners and AI, including NationWide Laboratories' new digital pathology scanner with water immersion lens.



ONLINE LEARNING

Interactive hub in partnership with The Webinar Vet: Enjoy bite-size pieces of valuable content coming in various formats to make your learning easy and engaging. Watch. Read. Listen. Communicate. We are open 24/7 all year round and accessible from the comfort of your home.

NEW LOOK AND NEW FEATURES:

- Fill in a short survey and get a chance to win an unlimited membership from the Webinar Vet;
- Challenge your Knowledge interactive quiz with prizes to be won!

[CLICK HERE](#)

Labfacts - now on Wikivet: Laboratory diagnostic reference guide written by NationWide Laboratories pathology team and aimed at helping you investigate diseases in small animals and horses.

[CLICK HERE](#)

Multimedia hub in partnership with Improve Veterinary Practice: Articles and podcasts by NationWide Laboratories pathologists. Advice on sample collection. Ask your laboratory expert series. Case studies and videos. Engaging and accessible content available 24/7 from any connected device.

[CLICK HERE](#)

HOW CLEAN IS YOUR PRACTICE?

We offer you a microbiological screening programme to screen your facilities and equipment. Swabs are supplied with simple instructions and a postage paid envelope for return to our laboratory for testing. We test for aerobic and anaerobic cultures as well as specific cultures for yeast and fungi. This comprehensive testing includes (but is not limited to) cultures for the following major groups of organisms: *Enterobacteriaceae*, *Enterococci*/*Streptococci*, *Pseudomonadaceae*, *Staphylococci* (Meticillin resistant/sensitive) as well as spore forming bacteria such as *Bacillus* and *Clostridium spp.* **For more information, contact us at info@nwlabs.co.uk.**