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WINTER 2024

NATIONWIDE LABORATORIES WINTER NEWSLETTER

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BLOG, NEWS, CPD

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Our LabFacts handbook is our laboratory handbook filled with tips, tricks, information, and advice on a range of animal pathologies and laboratory techniques, created by our very own expert veterinary pathologists

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SPECIAL OFFER: we believe in the power of veterinary education, so we teamed up with the Webinar Vet to offer you 5 courses covering different aspects of veterinary content. And to make this offering more exciting for you we are happy to offer these to you FREE of charge with promo code NATIONWIDE



Message from David Charvill

Dear friends,

Happy New Year and welcome to our winter newsletter! NationWide Laboratories is committed to making a positive impact on animal health by offering innovative products, technology and laboratory services. We offer friendly advice and rapid, reliable results to help fulfil your diagnostic and therapeutic objectives, and our expert teams can assist you in making decisions on relevant testing for companion, exotic and farm animals. We offer full interpretation across a range of testing areas, including biochemistry, haematology, cytology, histopathology, endocrinology, microbiology and more. NationWide Laboratories is keeping our service modern and relevant to you in the veterinary field. We have added a new, extra-fast and super-efficient slide digitalisation system into the workflow, which for you means improved turnaround times and better first-time results. We have also introduced online customer portal and courier booking app. NationWide Laboratories is customer focused, passionate about animal welfare and always advancing! Our teams have the depth of knowledge and experience to help you help your clients. Thank you for your custom.

David Charvill, Director of Laboratory Services



WATCH FREE →

Moving with the times in veterinary diagnostic laboratory services

David Charvill, Director of Laboratory Services, discusses how the sector has changed and how client feedback has driven the development of services to meet the evolving needs of vets in practice. He also shares his vision of how technology will affect the future of veterinary diagnostic laboratory services.

"Over the last 40 years, NationWide Laboratories has gone from a small lab in the northwest of England supporting local practices with the testing of samples, to one of the UK's leading veterinary diagnostic laboratories with sites across the UK," explains David.

Originally North Western Laboratories, the company was purchased by Dechra and then went on to be part of wholesaling group, National Veterinary Services Limited. Cambridge Specialist Laboratories, offering specialist endocrinology testing and contract research, and Abbey Veterinary Services, experts in histology, were acquired to expand the service offerina.

David readily agrees that the company has picked up a vast amount of experience and expertise along the way, "I'm proud to say that today the scope of our work extends well beyond general diagnostics. We don't only offer a comprehensive laboratory diagnostics package for all types of practices, but also have resources and expertise to carry out project work for multiple clients. We provide a complete histopathology service, any type of esoteric assay procedures and offer support for customised projects," and adds "We've been around a long time, so even though we've changed directions and expanded services, the business has seen quite a lot of continuity. We've got a high number of team members who've been with us for twenty-plus years and have seen those changes through. What has never changed though, is our passion for animal welfare and people-first attitude. We know our customers well and have a familiar relationship with them, working together as an extended team to provide the best possible service for the animals in their care."

Asked about how the sector has changed in the last 40 years, David is animated. "The veterinary sector has changed dramatically. The corporatisation of the veterinary industry has meant that the way people work and the way they interact has changed. From our point of view, we've had to adapt to that and change with it to be able to offer services to clients of all different sizes and types. So, from mobile vets all the way through to corporate practices, we've had to diversify what we're doing.

"The landscape has changed. It used to be that practices didn't necessarily have the technology inhouse to do things themselves. Over time we're seeing more inclinic testing, but practices always need the support of a lab and experts who can help them interpret those results. And that's where we come in.

"We work with clients from a whole range of backgrounds – from companion animal practices to farm animals to zoos - so one of the things we do as a laboratory is to tailor our services to the client's specific needs. For example, if a zoo needs specific profiles for their animals which don't match anything in our standard list, we're happy to work with them on developing different test profiles that are more relevant for them and meet their particular needs. We work with them to build what they need to look after their animals and run their business. That's one of the things we pride ourselves on: that close relationship with vet practices and other types of our clients. Our experts are always available to talk to our clients and help them fulfil their diagnostic, therapeutic and business objectives."

Read full interview



David is thoughtful on the subject of staying abreast of technological and research developments. "We're constantly looking at how to support our clients better and focus on keeping up to date with all the most recent advancements. Our clinical and anatomic pathologists are experts in their fields and constantly working to stay up to date with the latest information. Everyone in our pathology team has their area of specialisation, so when a complex case comes in our clients can be absolutely certain that the best people are looking at it.

"At the moment everything's moving towards digitalisation, so we've recently invested in our digital pathology system which allows us to digitise the slides, improve turn-around times and utilise resources not just locally, but across the world as well.

"We also work closely with our sister company, VetIT, to develop more integration into veterinary practices and generate a more joined-up approach to working. It's becoming more and more important to bring all the different aspects of the business closer together. Being part of NVS Group allows us to utilise that flow of information to continually improve our service for our customers. That's one of our big things.

NationWide Laboratories practices a customer-centred approach and David emphasises how keen the company is to gather and respond to feedback from clients.

"We want to know how we could do it Voice better. We have the Customer feedback programme, where we're constantly communicating with our clients to find out what it is they want and need from us. Whether feedback is good or bad, we try and act straight away to get resolution for those clients. We want people to feel like we're taking them seriously - that they're actively engaging with the business and that we're actively engaging with them."

Dear Clients, thank you for your custom & feedback: we appreciate it!



NATIONWIDE LABORATORIES NOW OFFERS NU.Q® VET CANCER SCREENING TEST IN THE UK

It is a simple, affordable, easy to use blood test which can be used as part of a wellness check for older dogs as well as younger dogs with an increased risk of developing cancer in their lifetimes, such as those with a familial history and certain breeds. By measuring and analysing nucleosomes in the DNA, the Nu.Q® Vet Cancer Test can identify patients who may have cancer. This must be confirmed by follow procedures, for example, a biopsy or a scan. Alongside other routine blood work and imaging, this test may help find cancer at an early stage, before symptoms appear, allowing for a better chance at effective treatment.

To enquire about this service/ subscribe to it please email <u>csls.info@nwlabs.co.uk</u>

NATIONWIDE SPECIALIST LABORATORIES OFFERS A SERVICE FOR THE ANALYSIS OF ERYTHROPOETIN (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 nonregenerative 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

CENTRE OF EXCELLENCE FOR HISTOPATHOLOGY

We provide diagnostic veterinary histopathology services to veterinary practitioners and universities throughout the UK and worldwide. Our interest does not stop at the point of diagnosis, and we are involved in research in veterinary medicine.

We have contributed to publications based upon both the samples that our clients send us and also in collaboration with other veterinary centres and universities.

Amyloid-producing odontogenic tumour (APOT) in a 5-year-old Maine-Coon cross cat



This is a piece of tissue taken as a biopsy from the mouth of a 5-year-old Maine-Coon cross cat. It was a hard piece of tissue for our technicians to process and when we examine this histologically, we can see that the submucosa is expanded and effaced by a densely cellular, poorly demarcated, and locally invasive proliferation of epithelial cells exhibiting cord, ribbon and island arrangements. Within the centre of many of the larger islands are circular to globular aggregates of brightly eosinophilic, smudged to glassy, acellular, amorphous material which was presumed as being amyloid. A special stain, Congo Red (right hand slide), highlights that this material is in fact, amyloid produced by the tumour. Digital pathology allows us to compare, side by side the tissue as examined with the routine haematoxylin and eosin, against special stains and immunohistochemistry. This allows us as pathologists to examine and capture the very nature of pathology changes allowing us to make accurate diagnoses. Here, we have an amyloid-producing odontogenic tumour (APOT). These are rare tumours of the oral cavity and have been reported in dogs, cats, in a goat, horse rabbit, moose, Bengal tiger and a prairie dog! They comprise approximately 1-4% of odontogenic neoplasms in the dog and has more recently been reported in the facial skin of cats.

Credit: Dr Marvin Firth BVSc (Hons.), DipRCPath, DipFMS, AFHEA, MRSB, MRCVS

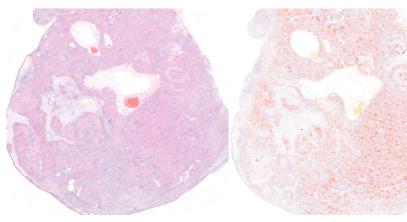


FIGURE 1. Haematoxylin and eosin (H&E)

FIGURE 2. Congo Red stain

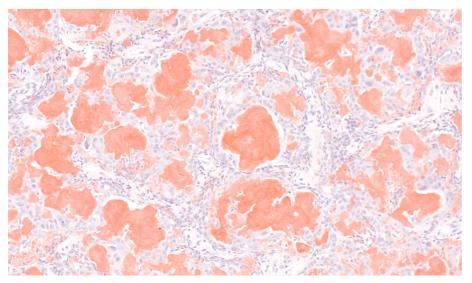


FIGURE 3. A higher magnification digital image of the amyloid producing odontogenic tumour (x40, Congo Red).

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 Pannoramic 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

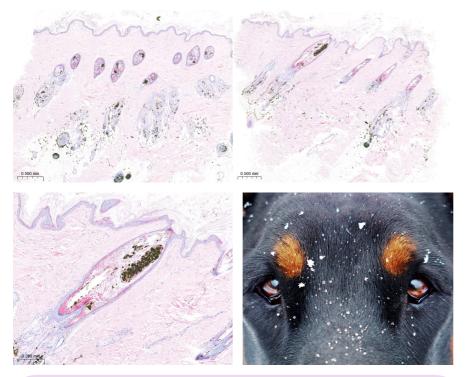
Contact

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

Colour dilution alopecia in a 3year-old male Doberman

Here is a case from a 3-year-old male Doberman that was exhibiting generalised dry dermatitis and alopecia over the trunk and had been nonresponsive to conventional, medical treatment. A series of biopsies were examined digitally here at NationWide Laboratories which showed mild changes within the epidermis including irregularly spaced, hyperpigmented basal epithelial cells and some pigmentary incontinence. Within the dermis, there was very noticeable follicular dysplasia and dense clumps of melanin pigment within the hair bulbs and follicles and even in the hair shafts, including enlarged melanomacrophages surrounding the base of the hair follicles. Overall, within the sections, the hair follicles are atrophied. There were minimal inflammatory cells throughout the sections. These histological features are consistent with chronic pigmentary intrafollicular and intraepidermial melanin clumping and pigmentary incontinence that is consistent with colour dilute/colour mutatnt alopecia or black hair follicular dysplasia and are observed in colour dilute dogs (e.g., blue or fawn colours). The follicular dysplasia often leads to poor hair coat quality and variably alopecia, such as that reported in this case. Hair loss is usually most severe on the trunk, especially dorsally. Secondary bacterial infection can sometimes be seen. This form of colour dilution alopecia is commonly seen in the Doberman Pinscher. As such, this is a classic case and the use of digital pathology allows us to both accurately diagnose the condition, whilst effectively sharing the key histological findings to our trainee pathologists and students. The ability to pan the whole slide image also allows us to quickly make judgements of the most important pathology and hone our attentions to these changes.

Credit: Dr Marvin Firth BVSc (Hons.), DipRCPath, DipFMS, AFHEA, MRSB, MRCVS



NationWide Labroratories offers SDMA assay with results available the same day. 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.

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 тоге information, contact 115 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 ОГ email info@nwlabs.co.uk for тоге information.

Veterinary woman: spotlight on Nationwide Laboratories team



ONLINE CUSTOMER PORTAL: IT'S LIKE 1, 2, 3 -JUST AS EASY AS CAN BE



Our online customer portal which was first launched at the London Vet Show in 2022 is now up and running. The portal is designed to streamline the sample submission, tracking and result reporting process. It perfectly aligns with our commitment to delivering a greener pawprint by offering you this alternative to a paper-based system.

This platform is set to give you another additional way to interact with us, offering a faster and more convenient means of managing sample submissions, tracking their progress and obtaining results. It is a software interface that gives you complete visibility into your interactions with our laboratories. To start using the platform please contact us at <u>CBailey@nwlabs.co.uk</u>

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.