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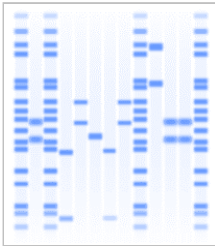
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DNA 'paw-printing' may be on the way



You will all be familiar with advances made over the last two decades in forensic science, culminating in the proof of identification of an individual using his or her genetic fingerprint.

This science may soon be applied to our pets as a more reliable means of confirming identity & ownership.

Traditionally a pet's identity has been registered using physical appearance, tattoos & more recently by implantation of a microchip.

The microchip has become universally recognised as the means by which an individual can prove ownership of a pet.

Furthermore, it is now used as an integral part of the PETS travel scheme that enables our pets to travel abroad without the need for quarantine on their return to this country.

Problems with this system arise when the microchip malfunctions & cannot be detected with a reader.

Such situations are rare, but could lead to 6 months quarantine being imposed on the individual.

The pet paw-print scheme would involve taking a small blood sample from the animal & establishing a DNA profile for that individual. This would then be stored permanently in electronic form, together with the microchip number, owner's details & any relevant passport numbers. In this way, a reference would be available for comparison in the event of any dispute about identity resulting from a microchip failure.



Genetic blood typing to identify disease carriers

Veterinary medicine is advancing closely behind human genetics in the identification of genetic codes that give rise to inherited diseases. Individual characteristics are inherited in the form of paired genes, one derived from the mother & the other from the father. Healthy adults may carry one recessive gene for a particular disease, but the disease will only be seen in the litter if this animal is mated to another carrier. Offspring carrying two recessive genes will manifest the disease.

Cat & dog breeders are now able to have their breeding stock blood tested prior to breeding & so remove any carrier animals from the breeding program.

Currently this service is only available for a small number of diseases & involves sending blood samples or swabs to the USA.



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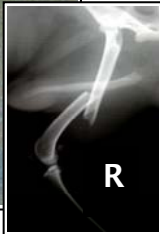
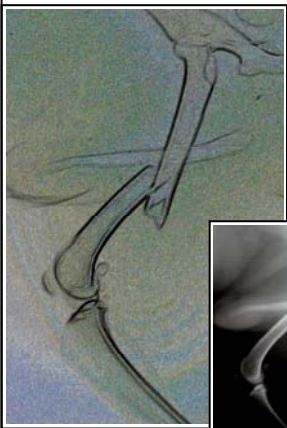
MacDonald Veterinary Clinics, Cheltenham

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December's snow & ice made driving difficult & led to a number of accidents involving our clients.

Blue, a young Shetland Sheep Dog was involved in a road traffic accident during one of those very frosty December mornings. He was travelling in a Land Rover, which left the road on black ice & unfortunately crashed into a hedgerow.



He presented at the Leckhampton surgery suffering from traumatic shock & with a suspected broken hind leg.

Following stabilisation of his clinical condition with intravenous fluid therapy & analgesic injections, radiographs were taken. These confirmed a simple transverse fracture to the right femur. Orthopaedic surgery was undertaken to reduce & stabilise the fracture; this involved placing an internal or intramedullary stainless steel pin support inside the broken bone.

No complications were experienced during the surgical procedure & *Blue* made a remarkably quick recovery from anaesthesia.

It is anticipated that the support pin will be removed under light anaesthesia circa 6 weeks after the original operation. This short procedure will be performed after a healing callus has formed around the fracture site.

Typically, fractures of this type stabilise in approximately 4 weeks with the formation of fibro-cartilage; this is later transformed into bone. The long bone is then remodelled by the body over a period of 8 months to leave only a small radio-graphical scar where the injury occurred.

Blue made a very rapid recovery from anaesthesia & at the time of going to print was making a good recovery from the trauma.

Should you have any queries regarding this or other articles appearing in the Newsletters, please send an email to:

admin@macdonaldvets.co.uk

We would like to take this opportunity to wish all of our clients & their families & pets a happy & prosperous New Year.

