

## Medical Detection Dogs

Norma Howell

For our December meeting we received a fascinating talk by Norma Howell regarding the work carried out by the Medical Detection Dogs Charity which was founded in 2008 by Dr John Church and Dr Claire Guest who together recognised the huge potential for advancements in human health that were possible by understanding and harnessing the power of the dogs nose which has over 300 million odour receptors.

The Charity trains bio detection dogs at its centre at Great Horwood near Milton Keynes to detect the odour of specific human diseases with the aim of developing faster, more efficient and less invasive diagnostics and is at the forefront of the research into the fight against cancer and other life-threatening diseases, including Parkinson's disease and bacterial infections. The bio detection dogs are trained to find the odour of specific diseases working with samples such as urine, breath and sweat and undergo 4-6 months training based on reward, tennis ball play and clicker training and when trained they work for 20 minute sessions up to 4 times a day. Norma advised that the dogs had a very high success rate for detection often considerably higher than conventional testing and during the COVID-19 pandemic the bio detection dogs had achieved a 94% detection success rate.

When the puppies come to the Charity they are homed with members of staff or local volunteers where they are treated as part of the family and undergo basic socialisation, the Charity currently use 14 different breeds of dog.

Together with the bio detection dogs the Charity trains medical alert assistance dogs to work with individuals by detecting minute changes in the individual's personal odour triggered by their disease and alerting them to an impending medical event helping them manage complex, sometimes life-threatening medical conditions and improving their quality of life. The medical alert dogs undergo 18 months to 2 years training which costs around £29,000 but when the dog is placed the client takes over the costs of looking after them. The alert dogs are trained to fetch a medical pack, fetch help or attract attention and a video showed how a client's dog gave her early warning of diabetic hypos, having provided over 2 thousand alerts in the first 2 ½ years, and the work of a families pet spaniel that had been trained to become an alert dog for their son improving his quality of life and giving extra reassurance to the family.

Norma told us of the on-going projects being undertaken into detection of animal cancers and also the work the Charity was doing with scientists to develop the "electronic nose" and explained how, having heard a talk about their work, she had become a speaker to publicise the valuable work of the Charity in 2016 which relies on the generosity of donations.

Lorna Fraser

Membership No: 0170