

THE

# Sniff



News from **Medical Detection Dogs**

Issue 10



Medical  
Detection Dogs



Patron: HRH The Duchess of Cornwall

## Dogs saving lives

[www.medicaldetectiondogs.org.uk](http://www.medicaldetectiondogs.org.uk)

# Medical Detection Dogs



Patron: HRH The Duchess of Cornwall

Registered charity in England and Wales No. 1124533  
and in Scotland No. SC044434

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Everyone at Medical Detection Dogs would like to say a HUGE thank you to Royal Canin for the amazing support they have and continue to give us.



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**Medical Detection Dogs is a charity dedicated to training dogs in the detection and recognition of human disease by odour. The dogs prevent medical emergencies, save human lives and improve quality of life.**

## There are two significant areas of work at the charity:

**Cancer Detection Dogs:** can detect the minute odours associated with many cancers. Specialist dogs trained to detect cancer volatiles can provide valuable information that will assist in the early diagnosis of cancer. We currently have on-going studies to detect Prostate and Breast cancer, working in conjunction with oncologists, scientists and NHS Trusts.

**Medical Alert Assistance Dogs:** are trained to alert individuals managing day to day life threatening conditions by detecting minute changes in body odour. These include blood sugar detection dogs for adults and children living with unstable Type 1 Diabetes who receive no warning of dangerously low blood sugar (hypos), which, if left untreated, can result in coma, seizure and hospitalisation. In addition, we train dogs for clients with life threatening Addison's disease, POT's, narcolepsy and have trained the world's first 'nut detection dog' for a client with a serious allergy leading to anaphylaxis.

**For more information go to [medicaldetectiondogs.org.uk](http://medicaldetectiondogs.org.uk)**



CANCER DETECTION DOG DAISY

Photograph by Emma Jeffery



CERY'S AND HER MEDICAL ALERT ASSISTANCE DOG WENDY

Photograph by Emma Jeffery

# Welcome to Sniff

I do hope you enjoy this issue of Sniff and may I say a huge thank you for taking the time to read about the work we do.

## Dr Claire Guest

Chief Executive and Director of Operations



On the 30th October 2015 I sadly lost my lovely cocker spaniel Tangle. Tangle was part of the world's first scientifically robust peer reviewed study, to determine whether dogs could be trained to identify people with bladder cancer from urine odour. He has been a part of my life since 2002 and will be sorely missed.

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Courtesy of Jamie Warwick Photography

DR CLAIRE GUEST AND CANCER DETECTION DOG DAISY



I am delighted that Debbie Flint, author and QVC presenter, has agreed to become an Ambassador for Medical Detection Dogs. She will be a tremendous asset to the charity and joins our other superb ambassadors, Kate Humble, Lesley Nicol and Gill Wright.

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We have now placed over 60 Medical Alert Assistance Dogs to alert to severe medical conditions and you can read how Jade has changed the life of Chris who lives with highly unstable type 1 diabetes, and his family.

**Page 18**



Our aim is to introduce 40 puppies in to our Medical Alert Assistance dog scheme in 2016. Our socialisers are vitally important in preparing our puppies for their future saving lives. Without our socialisers, we couldn't provide these life-saving dogs.

**Page 14**



The inaugural Medical Bio Detection Conference was a huge success and showed quite clearly that we are world leaders in this field.

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# The Future is bright

...and very possibly dog shaped. Our unique new research project could prove crucial in improving the diagnosis and treatment of urological cancers— Jan Shillum talks to the people making it happen



Photograph by Emma Jeffery

“We are hoping that dogs will be able to reduce the amount of men referred for a biopsy they don't actually need”



### Fact or Fiction

Many think, on hearing about Medical Detection Dogs fascinating new research initiative being undertaken in collaboration with Milton Keynes University Hospital and their prostate, kidney and bladder cancer patients, that it involves dogs living in the laboratories at the hospital or at least visiting every day. There will though be no Labs in the hospital labs; the dogs will screen samples at our Great Horwood training centre.

Some even believe they can keep one of those wonderful detection dogs for themselves as a kind of personal cancer alarm. Not so of course, though dogs can detect their owner's cancer, as CEO Dr Claire Guest and her Blue Cross Medal Award winning Daisy can testify. This and other research projects using detection dogs is dedicated to finding a faster, cheaper, more reliable method of screening for various forms of cancer and other diseases in the UK. It's a process involving infinitely careful and accurate training, talented dogs and the co-operation of scientists and statisticians as well as consultants, doctors, specially trained nurses, volunteers and patients.

### Hospital Logistics

As Dr Rowena Fletcher, Head of Research and Development at Milton Keynes University Hospital explains, the aim with this project is to scientifically test urine samples from 3,000 patients and volunteers over three years, in order to further research and change the way prostate, bladder and kidney cancers are treated in the future. “I am privileged to be the Head of Department, tasked with leading the team to give our patients the choice to participate in research. I work with clinical staff and our support departments to ensure that studies are feasible for us to participate in and recruit to time and target.

“A urological study like this one has never been done in the UK and it is the largest ever undertaken, we're all very excited about it now we have the go

ahead from the NHS Ethics Committee. Under the auspices of Mr Iqbal Anjum, our Consultant Urologist, doctors will begin asking their patients if they would consider taking part — they are usually more than willing to do so — then nurses will take them to a private room to explain the project and they'll sign a consent form which will allow us to keep urine samples and have access to notes, blood tests, MRI/CT scans/biopsy results. After that our specially trained research nurses will collect the urine samples from every urological clinic throughout the hospital — that will be a bit of a challenge — and the samples will go back to Medical Detection Dogs headquarters to be tested.”

“We are hoping that dogs will be able to reduce the amount of men referred for a biopsy they don't actually need, that would be amazing for our patients. The PSA test we use now [to measure the Prostate Specific Antigen level in the blood] to diagnose and measure treatment success for prostate cancer, which is the most common men's cancer in the UK, has a high false/positive rate. Though we don't know yet whether the dogs will be able to pick up cancers earlier than conventional methods of diagnosis, if they do there will be a better prognosis, the cancers can be treated more easily and that will result in fewer patients in hospital and should save the NHS a lot of money. Getting patients back to work and a normal life will also have a positive socio-economic effect on the nation's economy.”

“We have more than 3,000 staff at the hospital and since we also need control samples from healthy people between the ages of 18 and 40, many of them are keen to volunteer; people really want to do it. And the dogs of course do too; they have a real desire to achieve. I love that they seem so eager to get to work and are so proud of themselves when they detect a cancer sample, they seem to see it as a treasure hunt — they have a wonderful lifestyle, work they enjoy that is incredibly

useful and a caring, family life at home too. I'm blown away by what these amazing creatures can do.”

Rowena believes that in the future olfactory detection research with dogs will lead to machines being developed to mimic their ability to detect diseases and that these will then be in every hospital in the UK.\*

### Dogs At Work

Rob Harris is Medical Detection Dogs Bio-Detection Manager, responsible for the training of these impossibly clever dogs. “We have selected 10 dogs for the research program,” he tells me, “mostly Labs and spaniels and some retriever crosses. All dogs have the capability to detect cancer but some lack the instinct to search so working dogs with a ‘high hunt drive’ are selected because they will be searching out samples on a stand or carousel. After a training period the best eight will be tested under double blind criteria: importantly, this means all the samples will be from a group of patients that the dogs have never encountered before. The patients providing samples have been diagnosed but neither the handler nor the helper know the results. A randomised computer programme is used to select samples and a third person places them on the carousel. So there's no possibility of anyone knowing which sample is where.

Rob, like everyone involved, is thrilled about the new research. “A recent Italian study with prostate cancer\*, published earlier this year, was done at the Humanitas Clinical and Research Centre in Milan using two German Shepherds trained by the Italian military and had very promising results. Nearly one thousand clinical studies — 350 positives plus controls — produced over 98-100 per cent sensitivity, [- proportion of people who have the disease and test positive for it] and 98-99 per cent specificity [- proportion of people who do not have the disease and test negative for it]. Our preliminary training results are showing similar accuracy. We know

that the current PSA test has reliability issues so are hoping the new study will help to make reliability and accuracy higher in the future.”

“This will be a Proof of Principle study, with people whose diagnosis is already known, if the study is successful we’re hoping in the future to work with participants whose diagnosis is not known prior to sample testing. Science over the past 15 years has been sceptical about the use of canines in diagnosis but the tide is changing. This autumn saw the inaugural Medical Bio Detection conference in Cambridge, where the electronic nose people came together with the canine people for two days to discuss what will be possible in the future.”

### Moving Forward

Reiterating the importance of the work Dr. Claire Guest says: “Dogs can prevent unnecessary biopsy and have high levels of reliability. The results of work recently completed by our colleagues in Italy published in the Journal of Urology are truly spectacular and replicate our findings. If the next stage of our research shows that detection dogs can achieve consistently accurate results from thousands of patients, we plan to offer an additional test that could be used alongside the current PSA test.”

“We’ve reached a pivotal time in our development and the beginning of a lot more work but it’s clearly up to us to show the potential of what we’re doing. We have three years with the Milton Keynes University Hospital research; it will be an exciting,



URINE SAMPLE BEING PREPARED

challenging time, like travelling through space, a really big thing. It’s all happened very quickly, we’re delighted but have to get our heads down now, focus and deliver or it will be an opportunity wasted.

The great thing about the Milton Keynes work is that it will go on for three years so will give us longer to validate in someone’s diagnostic history. A partial indication or non-diagnosis may well change two years down the line. We have so much work still to do but not a lot of money like other areas of research though we’re working closely with the government. We need more bodies too, it’s been a frantic few weeks and we get tired but there are fund raising events in the pipeline and we’re hopeful there are

others out there who appreciate the importance of what we’re achieving and can help. This work cannot be ignored, it is telling us something about diagnosis that could save thousands of lives.”

### The Science Bit

\* Evidence based research is building to indicate that dogs could assist in improving current diagnosis of a significant number of cancers. Nanotechnologists have already used this research to develop prototypes of electronic noses

\* The Italian study, Taverna et al, Journal of Urology 2014, reported the diagnostic accuracy of dogs trained to recognise specific volatile organic compounds of prostate cancer in urine samples.

## You don’t need to jump through hoops to help us raise donations

You might not know this, but you can raise free donations for Medical Detection Dogs every time you shop online!

So whether you’re in the market for a hat or a holiday, office supplies or oranges you can help out when you check out – no cost, no catch!

### Here’s what to do:

#### 1. Join

Head to [www.easyfundraising.org.uk/medicaldetectiondogs](http://www.easyfundraising.org.uk/medicaldetectiondogs) and sign up for free.

#### 2. Shop

Every time you shop online, head to easyfundraising first. There are nearly 3,000 retailers on board, so simply pick the one you want and start shopping.

#### 3. Raise

After you’ve checked out, that retailer will make a donation to Medical Detection Dogs for no extra cost whatsoever.

There are over 800,000 people signed up to easyfundraising, helping raise money for good causes like ours, who’ve together raised almost £10 million! So far, with the help of our supporters, we’ve raised a whopping £2,573.43 of that.

It costs £11,200 to train a Medical Detection Dog, and you can help us do that for free with a bit of feel good shopping.

**easyfundraising**  
.org.uk

# The Cancer Detection Dog that changed History



Pioneer, Tangle, a chocolate cocker spaniel, bred in Scotland, with a field champion sire, was owned and trained by Dr Claire Guest, CEO and Director of Operations at Medical Detection Dogs.

Spurred on by anecdotal evidence of dogs alerting their owners to cancer in 2002, Claire began training Tangle to recognise the odour of cancer.

The training consisted initially of game playing and rewarding him if he could sniff around a room and detect a urine sample from a bladder patient. Then Claire moved on to discrimination tasks asking Tangle to pick out bladder cancer samples from two specimens one of which was urine diluted with water.

Next Tangle was taught to distinguish between bladder cancer urine and the urine produced by patients with other illnesses.

After seven months Tangle was ready to undertake the study that would change history.

In September 2004 The British Medical Journal (BMJ) published the results of this ground-breaking research which proved that cancer produces volatiles with distinctive odours which dogs, using their exceptional sense of smell, could detect. This was the world's first scientifically robust peer reviewed study and was the publication that led to the later formation of the charity.

Tangle was one of the six dogs that participated in this study. In the trial the dogs were trained to distinguish between urine samples from thirty-six bladder cancer patients and one hundred and eight comparison samples from healthy people and individuals with non-cancerous diseases.

Tangle scored the highest percentage rate, some dogs were unable to do it. He successfully identified the positive sample fifty-six percent of the time; the percentage if the dogs were selecting samples at random would be fourteen percent. During training, Tangle persistently indicated at a certain patient's sample which had initially been assessed as non-cancerous. The hospital doctors were particularly impressed when further investigations showed the presence of kidney cancer.



TANGLE WORKING ON PLATES

The gentleman had immediate surgery to remove his kidney. Several weeks later he wrote the following letter:

"Dear Tangle"

"Thank for you saving my life"

This incredible work was widely covered by the media in the UK and all around the world. HRH The Princess Royal made a visit to see the work and Tangle demonstrated for her. Tangle did hundreds of demonstrations for television and the media and not once did he make any errors. He was totally unflappable and reliable.

In April 2005, The Daily Mail featured Tangle in a full page article with the headline "The dog that can sniff out cancer" and the sub heading "Modern technology is superb at diagnosing cancer, but NHS doctors have discovered that Tangle the cocker spaniel is better still."

In 2005, in recognition of his work, Tangle was voted the UK's "coolest canine" in a competition run by K9 Media.

By March 2008 The Mail On Sunday were reporting the launch of a new charity Cancer and Bio Detection Dogs (the former name for Medical Detection Dogs) at Crufts and commenting that Tangle was "a bio detection dog with an eighty-six percent success rate in sniffing out tumours."

The iconic photograph of Tangle working on plates became the charity's logo.

By 2011, Medical Detection Dogs had made significant progress in developing the training technique and a second bladder cancer study involving Tangle was published in Cancer Biomarkers.

Following the 2012 Royal Canin olfactory study Tangle retired – he was ten and a half. His legacy continued when his breeder donated, Jobi, Tangle's nephew who would also be trained as a cancer detection dog.

During his retirement Tangle continued to accompany Claire to work to spend his day with her sleeping under her desk and enjoying walks with the other dogs.

When a cherished friend moves away, his presence will be sorely missed. Tangle changed history and his legacy will continue to save many lives in years to come, without him the charity wouldn't be here today.

He will never be forgotten.



RIP Tangle  
26 June 2002 – 30 October 2015

# The Tail of Two Puppies

By Claire Collier

From one-off donations, the gifting of suitable puppies, to ongoing sponsorships and more, Medical Detection Dogs is extremely grateful to those who support the training and lifelong care of these amazing dogs. Here is the story of two sponsored puppies and their very different journeys towards becoming Medical Detection Dogs in training.

Bounce has been a revelation to his socialiser, Sam Somerville, but perhaps not in the way you'd think. Bounce was donated to Medical Detection Dogs by his breeder in Warwickshire. He has been named and sponsored by Bounce GB, the indoor trampoline park in Milton Keynes. Kimberly Cox, Puppy Training Manager had the job of selecting him from ten little bundles of Labrador puppy fur.

Kimberly knows that the process begins with genetics, so she met each puppy from the litter individually to assess their reactions to toys, situations and human contact. The litter was fairly evenly matched, but Bounce reacted in a confident, biddable and collected manner. He proved that he was well-balanced, loved meeting people and he could face new challenges in his own, cheeky way.

When Bounce moved in with Sam and her family, including their own chocolate working cocker spaniel, Dylan, the family were in shock and utter awe when this little seven and a half week old pup, with his cute, round puppy belly, alerted them to the fact that he needed to go outside and ... ahem ... relieve himself! The intelligent, calm and focussed character that Kimberly saw when he was so small was also to shine through in his ongoing basic training where Sam and the Medical Detection Dog trainers nurture his behaviour to bring out the best in Bounce.

Sam, has taken Bounce out-and-about wherever she goes. Firstly out

and about in a puppy pouch (potential socialisers beware – Sam says to add at least 10 minutes onto each activity when you do this, as members of the public like to tickle the puppy and ask questions

about Medical Detection Dogs!), then on a lead to supermarkets, events, church and libraries. Bounce has gone to as many places as Sam can think of to make sure he is un-phased with life, as you never know where he'll need to go when he is paired with his human companion later on.

With the support of her children's school Sam has taken Bounce on the school run and into the mania which is a playground at the end of a school day. Bounce's love of supporting the children in his life hasn't stopped there though. Every evening Bounce accompanies Sam on her night-time rounds to say goodnight to her children, checking that they're all settled and ready for a good night's sleep.

Bounce will work for anyone, well anyone with food! His basic training covering obedience and common commands has gone well. He can be hard on himself though, and during a tough patch in his training Sam said that she could see that if he was getting frustrated with what he wanted to do then he would give a little bark. However with patience from Sam and a never-phased attitude from Bounce he is showing the makings of a tough, but sensitive pup who loves to please.

In the future Bounce will be paired with a client with a complex medical condition, so they can begin their potentially life-saving journey together.

Everyone involved with Bounce has high hopes for his future as a successful Medical Alert Assistance Dog and Kimberly in particular knows how important continued funding is so that she and the team at Medical Detection Dogs can 'use the latest, modern positive training methods' to ensure success.

## Bounce

Medical Alert Assistance Puppy



Photograph by Emma Jeffery

# “Medical Detection Dogs want to say a huge thank you to everyone who sponsors a dog in some way”

When you meet the petite, shiny, excitable and always happy Martha you'd never guess the manner in which she came to be a Bio-Detection dog in training for Medical Detection Dogs.

In February 2015 the team at Medical Detection Dogs were contacted by Company of Animals about a stray dog of working stock Cocker Spaniel origin who was in desperate need. She had a microchip, but unfortunately it was unregistered, so she needed a place to call home. On top of this she had a severe infestation of mange which had stripped the fur from almost all of her face, nose, legs and tail. The unmasked skin was very delicate and regular treatment would be needed if she were ever to regain her shimmering layer of black fur.

After being handed to Medical Detection Dogs by Company of Animals, Martha met Debra Church, who was to be her carer for the next five months. Debra used baby sleep suits for Martha, to cover her sore and often itchy skin, but sometimes even the 'cone of shame' was needed to protect her from itching the skin, or to prevent Martha from licking the chemicals required for the treatment of the mange. However throughout all of the thrice weekly bathing Martha remained resolute in her requirements - her need for cuddles, love and the opportunity to sniff.

Debra describes Martha as a little 'diva', but from nicking dirty socks, to being so keen to get into the car that sometimes she jumped into the car before the boot lid was even open, Debra knows that she was only able to provide a 'safe haven for [Martha] to recuperate with many canine friends and cuddles' due to the ongoing financial support from Company of Animals and puppy sponsors like them.

Martha now lives with a foster family where the number of dogs outweighs the number of humans! David and his family have three working cockers and three springers, as well as two dogs who are family pets. David said that he was wanting to help a charity when he heard about the work of the Medical Detection Dogs and with that many dogs adding one

more was 'no extra work'.

David has recently involved Martha in a fundraising event within his company and the staff were delighted to meet Martha and were amazed by what she was training to do. David continues to support Medical Detection Dogs, not only by providing an ongoing home for Martha, but by continuing to raise awareness of the charity further afield.

Martha is three months into her basic training and is learning to distinguish different odours, including identifying a

specific target odour from other distraction odours. Once allocated to a cancer detection project she will have additional training and ongoing support to participate in this potentially lifesaving work.

Bio-Detection Manager, Rob Harris currently has 25 Bio-Detection dogs in training. The dogs never 'qualify' as such, as this field of work has such a wide remit of odours and possibilities that the dogs are constantly learning and adapting to scents which humans haven't been able to detect, or even identify. He sees Medical Detection Dogs as a way of 'providing Martha with a secure future' as Martha will be under the care of the Bio-Detection team for the whole of her life.

## Martha Cancer Detection Dog



Photograph by Emma Jeffery

# With the simple lift of a paw

By Claire Collier



However one thought links them all - giving these talented dogs the training and opportunity to potentially save a life, often with the simple lift of a paw.

On a beautifully calm and sunny Saturday in July within the gardens of Winslow Hall, near Milton Keynes, some of the volunteers, supporters, puppy socialisers, staff, the clients and their amazing dogs came together to celebrate a successful year and to say a big thank you to everyone involved with the charity. The people I met were all positive, caring and friendly individuals who shared an immense love of man's best friend and the relationship which can be fostered between dogs and humans. The canines in question were as varied as we humans can be, with black and golden Labradors sniffing alongside spaniels, poodles and other breed mixes.

However, little did I know that by the end of the afternoon the serious side of the cause would be revealed

to us all in a calm, but quite dramatic fashion.

Val, Margaret, Di, Ann and Kate are five fundraising ladies who call themselves 'Mad Prestwood'. They run activities to raise funds for Medical Detection Dogs as well as other charities and they are already booked to collect more funds by riding alongside Father Christmas in December! They like to know that they are helping to save lives, whilst having fun and making friends at the same time. They have even raised enough money to name a Medical Detection Dog, a big black Lab which they named after their favourite activity - 'Quiz'. They enjoyed the Thank You party last year and they were looking forward to hearing about the ongoing work as well as having the opportunity to hand over a cheque from their latest fundraising efforts. They also gave me the first warning that I would need my tissues ready for the testimonials later.

Jane and Ian Grant are first time puppy socialisers and they seem to be relishing the challenge of taking Ralph, a breeder donated show standard Golden Labrador, to many different places. At 15 months old, Ralph is going to start his sniff-training a little later than expected, due to his health coming first and hydrotherapy sessions proving useful. However, if Ralph is as adept at his training as he is at raising awareness of the charity with his sociable character and handsome features, he will go far! Ralph's 'work' so far has prompted his local food store to adopt Medical Detection Dogs as their charity for the year, he has been to Henley Agricultural Show and whilst on his way to see the poppies at the Tower of London he has even done that most difficult of tasks - making smiles appear on the faces of London Underground commuters as he lay on their feet!

Yasmine Tornblad owns a very special dog, Nano. Nano is a six year

## A whole range of people with a whole range of reasons for volunteering their time.



THE MAD PRESTWOOD FIVE



JANE AND IAN WITH MEDICAL DETECTION DOG RALPH

old miniature poodle who was already owned by Yasmine and who three years ago began his training to become an allergy alert dog. Yasmine travels for her job and was often hospitalised after eating hidden nuts in her food. This could be a particular problem in countries where they use nut oils within foods. Nano alerts Yasmine to nuts hidden in foods and traces of nuts in other places such as hotel rooms. Nano has given Yasmine so much confidence over her food choices that she tried something which seems ordinary to most people, but for Yasmine was 'difficult to consider because it felt unfair' before Nano's help – Yasmine and her husband Stua welcomed twins into their family a year ago.

Tom Borland, his wife Jan, his daughter Kate and her husband Albert became aware of Medical Detection Dogs when Tom read an



YASMIN AND MEDICAL ALERT ASSISTANCE DOG NANO WITH FAMILY

article in the Milton Keynes Citizen about their work. Tom wanted to become involved and after seeing a demonstration of the dogs at work, it reinforced his need to be part of the charity. Tom is one of a team of volunteers who cover many duties,

including being chief car parker at a recent event! All of the family understand the empathy a dog can show towards people, as they have suffered from various illnesses and they once owned a Golden Retriever who was very sensitive to Jan when she was in need. Kate especially likes 'to see how (the dog) enables people to live as they would like to'.

Once we moved into the marquee, we were delighted to see and hear how the work of the Medical Detection Dogs is changing and developing as well as how it has changed the lives of many people. Trustee Betsy Duncan-Smith welcomed us and Dr Claire Guest gave an update on the highlights of the past year as well as telling us about where the charity is headed for the future.

Claire fronted a demonstration, showing a beautiful springer spaniel named Sye detecting Amyl acetate, a smelly chemical, firstly in a mix of 1 part per 20 million, then at an amazing 1 part per 50 million. Sye was also able to demonstrate when there was no amyl acetate in any of the samples presented to him. To put this feat into context you need to know that humans can smell this



SYE DETECTING AMYL ACETATE

chemical in 1 part per 500, but usually by 1 part per 1000 humans are unable to smell this chemical. This means that the dogs can smell the chemical at 50 000 times smaller proportions than a human can.

Then came the need for the tissues – as predicted by the ‘Mad Prestwood’ five! The client testimonials introduced us to Gemma and Polo, a young lady and her shiny black Lab friend, who alerts her when her blood sugars fall or rise above an agreed clinically relevant level, as well as another diabetes partnership Claudia and her dog, Alice.

Then we were introduced to Sam and medical alert assistance dog Charlie. Sam has POTS, a neurological condition which sometimes means that her heart and brain do not communicate properly, leading to sudden blackouts. Charlie is the first of his kind alert dog, who smells the changes which happen before Sam suffers a blackout. With Charlie by her side Sam now knows when to stop and get herself into a safe position, in a safe place so the blackout cannot cause any other injuries or danger. This has led her to have the confidence to get out of the house and even to attend a family wedding with only her daughter.

Then came the heart-stopping, jaw dropping moment which made all of the work everyone does very clear. We were introduced to Chris, who has type 1 Diabetes and many associated complications from this. Whilst Chris was standing on stage right, watching his wife Sam presenting the amazing work of his beautiful alert assistance dog, Jade, there was a moment which made everyone in the audience collectively hold their breath. Jade shuffled and turned her gaze to her owners’ eyes and after waiting for a second she lifted her paw and gently laid it on his wrist. A calm, but very clear message then passed from dog to owner, a signal that all was not quite right.

That moment was unforgettable – in the midst of all of those people and Sam telling Chris’ story, was the silent motion of a loyal canine helper indicating to her human companion.



SAM AND MEDICAL ALERT ASSISTANCE DOG CHARLIE



GEMMA AND MEDICAL ALERT ASSISTANCE DOG POLO

Chris then sidled off stage to test his blood sugar level – it was low at three, and moments later he was able to tuck into a sugary treat to raise his blood sugars. Potential crisis averted, well done Jade!

I felt privileged that I had been able to watch the purpose of our work in action and to watch first-hand how this talented and dedicated canine had changed Chris’ life by giving him the beginnings of a much sought after freedom.

Our time together was concluded by Medical Detection Dogs Ambassador Lesley Nicol, star of Downton Abbey, taking to the stage to help

congratulate some of the volunteers who work in many different capacities for the charity.

Overall I had a fabulous and eye-opening afternoon watching how the staff, volunteers, clients and most importantly, these talented dogs interact with love and care for each other and for the charity. In the future, if I ever wonder that I’ve chosen the right charity to volunteer my time to, I’ll remember that defining moment ... the moment that for the 457th time in only three months Jade saved Chris’ life, with the simple lift of her paw.



JADE HAS TURNED TO CHRIS JUST BEFORE SHE GAVE HIM THE ALERT

# Debbie Flint

QVC Presenter, Author and Ambassador  
for Medical Detection Dogs

Who would have thought that walking through the streets of London in the dead of night in your bra would have led to my connection with talented canines?! When I did the Moonwalk, May 2015, I met Christina Bowden from Medical Detection Dogs, one of the charities being supported on the night. I was really impressed with the work they do. She told me how these dog can alert their owners when something is happening to them – for instance, a dog paired with someone living with type 1 diabetes, can detect whether the owner's blood sugar is low or high, and alert them to test their levels. I was intrigued. I'd spent much of my life around dogs and have three of my own – all Labradors – or flabradores in Gracie's case! Turns out Christina knew me from QVC and invited me down to see what goes on. So the date was set for July 14th.

July 14th rolled around, and off I went to visit their headquarters in Milton Keynes, and while I was sitting there a lovely lady called Carolyn who has lived with type 1 diabetes for 30 years, had an alert from her fabulous dog called Simba. He made the weirdest noise I've ever heard a dog make, and it meant she had to check her blood. Now Simba is supposed to alert Carolyn when her blood sugar is lower than five or higher than 15. When she checked it, it was 14.9. How amazing is that! I just knew I had to do something special.

Lo and behold, fate stepped in, as I suddenly found myself in the middle of a house move – I live on a country estate that is historic and beautiful but their tied housing means they need certain houses for the workers, and their new gamekeeper with his six dogs and two young children, needed one of the biggest houses, so mine was earmarked. Funnily enough I'd spent two years planning to move, putting plants into containers instead of the ground and so forth, so it was time. My kids had moved out and the other place was too big so I began my de-clutter to

downsize into my little two up two down, five minutes up the road. I had a lot of stuff I needed to get rid of. So I thought why not hold a small table top sale in the village hall next door, and make a few hundred pounds.

Well! Not only did we raise around £1900 on the day, including teas and a tombola and a sponsored 'Bodyblade' session, we also ended up also holding an online raffle with the best stuff a 'mega draw' – we're going to have another one at Christmas time! much of which was donated from QVC customers and fellow presenters, one or two prizes were actually worth over £200! They entered online on a special Just Giving page set up just for the purpose. It was quite a crusade with so many people willing to help out. Along with private donations we topped £5000 and Christina contacted me afterwards about becoming a permanent ambassador and helping to spread the word. I was delighted.

Coincidentally, the same weekend of my Table Top sale, Medical Detection Dogs were all over the news. The announcement had just gone out about the go ahead for the three year prostate cancer study, with the aim that it would eventually save the NHS a lot of money pinning down the urine samples with cancer in. Dr Clare Guest and the team appeared on TV, in the newspapers, on the radio, and whenever I mentioned it to my friends they seemed keen to help out. I had a penchant for pogs, (puppies and dogs) as we call them! So it was a match made in heaven. Plus there were a couple of things about me that the team didn't know.

Apart from growing up with dogs – my mum bred pedigree poodles – loads of them – and I bred three litters from my various labs whilst my kids were growing up. Now I have Gracie, Patch and Daisy – otherwise known as 'Fat Dog, Old Dog and Escape Dog. Gracie has hip dysplasia so I couldn't breed from her or Daisy (elbows) but at time



DEBBIE FLINT

of writing, Gracie is undergoing a new treatment for arthritis using stem cells harvested from a fat pad they took from her groin. One way to lose weight... lol. Seriously, I'm hopeful it will help. As you can tell, my dogs are an integral part of my life, so you can imagine how much it hit home to me when I went to visit the HQ.

I was also delighted to attend the first Medical Bio-Detection conference in Cambridge in September 2015. There I heard again how key these animals are to so many of the owners and how some countries – like Norway – already use canine detection to help spot prostate cancer alongside hospitals. If all three of their dogs say it's present then that sample is highlighted to the hospital, saving costs given that 25,000 biopsies are done each year, but only 5,000 turn out to be positive due to the erratic nature of the PSA results. That's what Siri, the lady in charge there, told me over dinner in the 400 year old dining hall at Emmanuel College.

That night I sat for a long time with Anne Mills from Medical Detection Dogs, devising a plan to help raise lots of money for a dramatic expansion, and I hope to bring you news of it over the coming months. For more info about my activities, do go to my website [www.debbieflint.com](http://www.debbieflint.com) and look on the 'my charity' page, or follow me on Facebook or twitter (@debbieflint). My charity – I do like saying those words. I've never had that before. Thanks Medical Detection Dogs.

# Work in Progress



Photograph by Emma Jeffery

Attending a ‘New Socialiser Training and Handling’ morning at Medical Detection Dogs Great Horwood headquarters was fascinating — it’s not as easy as it looks, there’s so much to think about — a bit like patting your head and rubbing your tummy all at the same time but it didn’t seem to put these enthusiastic volunteers off one little bit.

## The People

I talked to Drew and Sam who had previously socialised puppies for Hearing Dogs — Sam’s mum has one of their dogs, so they are familiar with the requirements and have a working cocker spaniel of their own. They’ve

been allocated Bounce, a sweet, black 10-week-old Labrador whose ebullient nature lives up to the name given him by his sponsors, Milton Keynes trampoline company, Bounce UK. Though he’s still a baby he already understands some of what’s required of him and is very well mannered.

Cathy has looked after brood bitches for Guide Dogs for many years — the current one now a family pet since she ‘retired’. Cathy’s kitchen, she tells me, has seen the birth of more than 60 puppies who she’s then looked after for up to six weeks, so as she puts it: “the house has scars!” She has volunteered for

holiday cover for Medical Detection Dogs. Peter and Peggy have had dogs for around 40 years and have come along to find out more, they have yet to be allocated a dog.

People volunteer for so many different reasons, all good. The attendees today are or are planning to be long or short-term socialisers or taking the first step by providing holiday cover. This year the plan is to place 18 dogs with socialisers but this figure will increase over subsequent years as Medical Detection Dogs provides ever more dogs to clients in need of alert assistance.

## The Training

Medical Detection Dogs has a no kennel policy so the dogs always live with people and each staff trainer is allocated 12 dogs. Our trainers aim to produce flexible, well-rounded dogs that are used to varied routines so that the dogs can fit to the lifestyle of the socialiser and hence to the lives of the clients with whom they are eventually matched. It’s a delicate, complicated, instinctive and rewarding process very much dictated by the nature of the dog.

Golden Labrador, Domino, for example, (sponsored by a local well-known pizza company obviously) is, according to trainer Kimberly Cox, who’s in charge of this session, “a lovely dog — the finished product; calm, quiet and easy.” Training is always done with kindness and rewards, never with a raised voice, water spray or other deterrents. The reward is food that comes out of the daily allowance; socialisers are given feeding guidelines and advised not to feed from the dinner table to avoid begging in the future. Food is supplied and any extras strictly not reimbursed — no risk of overweight dogs here then.

Socialisers are also given a training manual and a list of commands to use that are universal to trainers and clients so as not to confuse the dogs. Always putting safety first, the advice

## Jan Shillum reports on the training of some of our newest recruits

is to use car harness, crate, or dog guards in cars and to attend training classes even before having a dog because it helps training staff to get to know you and aids confidence in handling a dog. Any would be socialiser needs to be confident that the dog will come back if let off the lead. There is a demonstration of putting on a head collar harness and an Medical Detection Dogs coat and volunteers practice walking using a loose lead and gentle commands, also the slightly tricky technique of standing one foot on the (loose) lead while not in motion to keep the dog by their sides.

Kimberly tells us that as a general guide exercise should last a minute per week of age i.e. a 15-week-old puppy gets 15 minutes. "There are," she says, "no actual restrictions after puppy-hood but you shouldn't give excessive exercise. We want our dogs fit and healthy but it is possible to wear a dog out mentally. Jogging or bicycling with a dog is not helpful as the client may well not be able to continue this, playing ball should be done in moderation for the same reason — no ball flingers. Always use common sense in a picnic area, or when other dogs or livestock are around and put your dog on the lead."

"At home dogs should not be allowed on sofas or beds as the client may not want this, dogs should be



able to go upstairs though and should want to stay close to you. It's a fine balance between encouraging the dog to behave appropriately but not discouraging the dog with negative training — the dog could eventually be with a client who might be in bed when needing an alert for a hypo for example and you don't want the dog to be frightened to approach in this situation."

It is surprising that puppies like little Bounce begin their training so early but Medical Detection Dogs trainers reckon they can spot potential within the first 12 weeks of a puppy's life — Bounce certainly has it 'in spades'. Those dogs that don't will receive training that is not quite so intensive or refined and eventually become the equally amazing Bio Detection Dogs.

### Useful information

- Volunteers can try 'holiday cover' initially to see how they get on.
- Each socialiser is allocated a trainer who is their first point of call.
- The folder issued to every socialiser has training information plus all important phone numbers for vets, advice, any concerns etc.
- Medical Detection Dogs pays for mileage, food and for any equipment deemed necessary by the trainers.
- You or your company can name a Medical Detection Dogs puppy for £2,000.
- Sponsoring one dog's training costs £11,200.

If you would like to volunteer as a Socialiser, contact  
[pam.jones@medicaldetectiondogs.org.uk](mailto:pam.jones@medicaldetectiondogs.org.uk)

Tel: 01296 655888

### Commission a portrait of your dog and help Medical Detection Dogs



Bridget Wood has drawn this portrait of Cancer Detection Dog, Daisy.

Bridget bred Daisy who is owned and trained by Dr Claire Guest.

Bridget has previously undertaken commissions for the Queen and the Duke of Edinburgh, the Duke and Duchess of Westminster, and the Rt. Hon Iain and Mrs. Duncan Smith.

Having worked in the past on "Survival", Anglia TV's wildlife documentary programmes and been a photographer of weddings, children and newborn babies at the Portland and St. Mary's Lindo Wing, Bridget now has more time to concentrate on her pastel drawing in her small studio in Kent.

Bridget is very kindly giving 20% of her profit to Medical Detection Dogs.

For commissions.

Email: [bridgetwood2011@gmail.com](mailto:bridgetwood2011@gmail.com)

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# Cancer Detection Dogs

Daisy



Florin



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Kim



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Lizzie



Lucy



Martha



Midas



Sooty



Sye



Teasel



Ulric



# *Our Cancer Detection Dogs are truly top dogtors*

Midas, Daisy, Ulric, Lucy, Martha, Kim, Kiwi, Carrie and Florin, Jack, Jobi, Kara, Kizzy, Lizzie, Sooty, Sye and Teasel are all working towards the early detection of cancer which could save millions of lives!

## **Which Cancer Detection Dog would you support?**



Medical Detection Dogs carries out ground-breaking research to improve the early diagnosis of cancer and other diseases using canine olfactory detection.

The Bio-detection team are currently working on research studies into the detection of prostate, bladder and kidney cancer, breast cancer and ovarian cancer. Some of the biggest killers in the UK.

One in two people born after 1960 will experience cancer and sadly early detection rates in the UK are amongst the worst in Europe.

If successful these projects will ultimately lead to the earlier diagnosis of different cancers and the possibility of saving thousands of lives.

Our published successes lead to many new requests for cancer projects from senior oncologists and clinicians and we urgently need your help to assist with the training and support costs for these amazing dogs.

The costs for each dog on a research project is £600 per month.

**To support research in to the early detection of cancer contact :**  
**[anne.mills@medicaldetectiondogs.org.uk](mailto:anne.mills@medicaldetectiondogs.org.uk)**

# Chris & Jade

Chris Gardner was a typical 22 year old enjoying his job as a hospital porter and in his spare time playing basketball, running and drinking with his mates. Then, with absolutely no warning, he collapsed. He awoke to find himself in A&E with a diagnosis of Type 1 diabetes. Understandably, he thought his life was over!



## “ I felt my life was over ”

Since that dark day in 2005 Chris has had more ambulance call outs, high dependency stays and A&E visits than he can remember – all with dangerously high or low blood sugar levels. As if the diabetes itself was not enough, it has resulted in numerous other serious health complications such as heart disease, retinopathy, dual incontinence and a disease that kills the nervous system in his back, bladder, bowels, feet and knees. Chris is just one in a handful of patients whose diabetes the NHS can not get under control, despite an insulin pump, glucose monitoring and various courses. In desperation he enquired about a full pancreas transplant but he was rejected because of the severity of his diabetes and the very real risk that he would not come round from an anaesthetic.

Deprived of any independence and unable even to play with his young son, Chris felt he was existing rather than living. The future looked shockingly black. But that was before an amazing dog called Jade burst into his life.

Chris's wife Samantha heard about the charity Medical Detection Dogs and filled in and sent off the application form. Fully prepared for yet more rejection, Chris was delighted to be invited for interview and then thrilled to be placed at the top of the waiting list for a dog, trained to alert him to a blood sugar change. (One of the problems for Chris is that he personally experiences no sensation of a potentially fatal change in sugar levels so in life before Jade, he always needed an experienced person such as his wife with him to detect subtle changes in his facial expression and way of speaking as warnings).

Just before Christmas 2014, came the magical moment when Chris

met Jade. “As soon as she entered the room she came running up to me, sat in front of me and just stared at me. She wanted to play. It was an instant connection,” explains Chris. In that poignant moment, both man and dog seemed to know that their lives had changed forever, for the better.

Two year old yellow Labrador Jade went to live with Chris, Samantha and four year old Jayden. “We hadn't had a dog before so I found it very hard at first – I didn't want to tell her what to do.” But thanks to Helen Marsden, assistance dog instructor, from Medical Detection Dogs and close friends, Chris learned that dogs feel more secure in having firm commands and understanding what is and is not allowed.

All owners like to think that they experience a unique bond with their dog but the deep partnership between Jade and Chris is truly awe inspiring. She is utterly devoted to Chris, as he is to her and one cannot help feeling that this lovely dog understands how valuable her work is. Not many dogs regularly save their owner's life hundreds of times! “Her attachment to me is phenomenal, she is always by my side. She sleeps beside my bed and even when she is out running free on a walk she prefers to keep by my side. Jade is trained to alert Chris when his blood sugar level drops below 5 and she does this by placing a paw on him if he is sitting down and jumping up at him if he is standing up. Of course, there are times when she only wants to play with him but he always tests his sugar level – just in case. In a three month period Jade alerted Chris 456 times and his wife only had to use three hypokits (as opposed to more than 12 a week before Jade arrived) when, despite Jade's alert his sugar dropped so fast he

couldn't treat himself quickly enough.

The difference Jade has made to Chris is monumental. She has not just saved his life but she has helped him regain his confidence and independence and lead a life like any other 32 year old husband and father. From a bleak, dependent existence when he could never go out on his own or be left alone he is starting to enjoy the simple pleasures that most of us take for granted – like going to the shops or having friends round while his wife goes out. Recently, Chris, Samantha, Jayden and Jade took a short break in Scarborough – just like any other family. “It was lovely to see Jade running on the beach and in the sea, just being a dog.” Perhaps best of all, Chris can now do all the things that other fathers and sons do, like play football. And you can be sure the ever-watchful Jade joins in! (It is perhaps unfortunate that the names Jayden and Jade sound so similar: both come running when one is called!).

For the first time in 10 years Chris is optimistically looking to the future. “At the moment I am taking things slowly but steadily as my confidence grows. I still struggle on bad days but most days I try to cram in as much as possible with my wife and son with trips to the beach and museums. I'd like to get back to work – perhaps something in IT where an employer will accept a dog.”

The transformation this loveable Lab has made to Chris Gardner's life – and that of his wife and son – is overwhelming. “I want to say a massive thank you to Medical Detection Dogs. There aren't enough words to describe how they have given me my life back. I can't imagine life without Jade and to be honest, I don't know how we ever managed without her. She is just so

“

*I am delighted to help knowing the considerable difference these dogs can make to people's lives*

”



DUCHESS OF WESTMINSTER

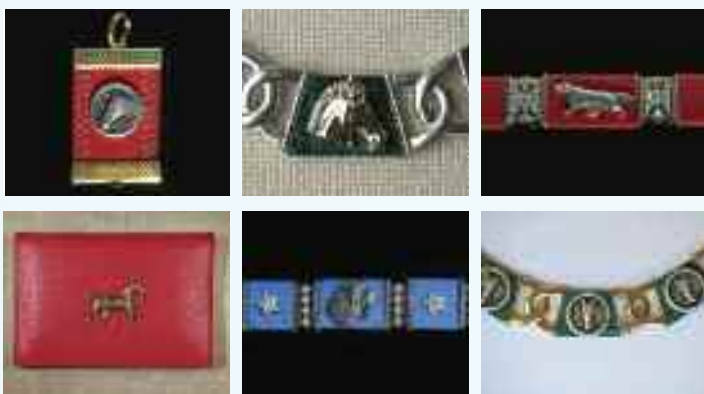
amazing! She has made me realise what life is meant to be – lived to full potential.”

And as if the arrival of Jade was not enough in itself, the icing on the cake was the recent news that the Duchess of Westminster has agreed to be her sponsor! “I was gobsmacked when I heard – I couldn’t believe it!” says Chris. “I was in the middle of shopping and I was so over-emotional that Samantha had to take me back to the car. It has really given me a terrific boost.” The Duchess said to Chris, “Medical Detection Dogs is a truly remarkable charity and really touches my heart. I would love to help knowing what a difference one of these remarkable dogs can make to family life by giving comfort and security.”

Now Chris is looking forward to meeting her soon to thank her in person – and, you can be sure, Jade will be on her very best behaviour!

## BEAUTY IN THE BEAST

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# Hidden History

By Claire Collier



VICKERS WELLINGTON MK2

**So much of our history has been lost or forgotten over the years. However Rita Essam, a volunteer and dog fosterer at Medical Detection Dogs recalls a wartime canine link to the site the Medical Detection Dog centre now occupies at Great Horwood.**

In the summer of 1942 rubble was shipped from a devastated London to a site on Greenways Farm just to the South-East of the current home of Medical Detection Dogs in Great Horwood. The rubble was to become the hard-core base for new runways and roads which formed a RAF camp – named RAF Little Horwood. The locals were primarily to see the flights of Wellington Bombers to and from the site, although Tomahawks and other planes were also in use on the site.

Rita's mother, Margaret, never got to see what was going on in the RAF camp, even though it was not far from her front door in the village of Great Horwood. However someone very close to her was warmly invited onto the base and even accompanied the pilots on their manoeuvres time and time again.

Sally was a black dog of unknown mongrel status, with a similar look to that of a small Lab cross. Sally was Margaret's companion, especially since her husband Leonard had joined the Army. Sally was loved by the evacuees Margaret took into her home as well as by the pilots who worked at RAF Little Horwood. There were many evenings when Margaret would answer the front door to such pilots, who wished Sally to accompany them that night.

RAF Little Horwood was used as a base for the day and night-time training of pilots for bombing missions and for 'Nickelling', where propaganda leaflets are dropped over France. Sally became an unofficial mascot for many of the pilots working there, although we will never know how many flights Sally took and to where in the world they



RITA'S BROTHER IVOR WITH SALLY

led her. All we know for definite is that Margaret was always pleased when she got up in the morning to find Sally fast asleep in her kennel, knowing that she and the pilots she had flown with must have returned safe and sound.

After the war RAF Little Horwood's last flight was on 30th November 1945 and the site was last used in January 1946. While in Sally's world she welcomed the master of the house, Rita's father Leonard, back from the war. The little 'docile old lady' that Rita and her brother, Ivor grew up with lived on to an old age of 14, having kept her wartime secrets hidden from all.

# World Class Canines



In September, Medical Detection Dogs hosted the Inaugural International Conference on Medical Bio Detection at Emmanuel College, Cambridge. Over two days, 95 delegates, scientists, researchers and animal behaviourists from around the world gathered to share ground-breaking ideas on the early detection and management of human disease.

Nine presentations offered a fascinating insight into the work currently taking place around the world.

**Co-founder of Medical Detection Dogs, Dr John Church** opened the symposium with an engaging presentation on the complexities of nature and the potential of medical bio-therapy – where insects and mammals have equal scientific value to machines. From nematodes to leeches, scavenger fish to maggots, bees to rats, and not forgetting the humble canine, this medical bio-detection is uncharted territory.

**Dr Claire Guest, CEO of Medical Detection Dogs, UK** delivered an inspirational talk detailing the work of the charity. Dr Guest highlighted the importance of good clinical practice to provide evidence-based research, and reiterated that it is the integrity of such data that is finally silencing the sceptics and winning support from the clinicians and key NHS stakeholders. Several respected research bodies, from a range of clinical areas, have expressed an interest in collaborating with Medical Detection Dogs in new studies. Projects currently undergoing ethical approval include studies of human lung cancer, ovarian cancer, Parkinson's disease, colorectal cancer, and canine cancer. Further studies on human urinary tract

infection, bacterial versus viral infections, dementia, and infection caused by the bacterium *Pseudomonas* are under discussion.

Despite the environmental challenges of working with dogs in a crowded lecture theatre, cancer detection dogs Midas and Lucy wowed the audience with a live demonstration. Witnessing first hand as the dogs work the carousel never fails to amaze the audience, and there was an audible gasp from some delegates as each dog sat to indicate the presence of a positive result (i.e. disease present) amongst the various samples being screened.

Serious science aside, an exuberant dog combined with a slippery wooden floor still makes for some light entertainment!

**Dr Christian Mulder** had travelled from Belgium to share the work of the international organisation **Apopo**, who train rats to save lives. As head of the Tuberculosis Department, Dr Mulder's detailed insight into the working practise of the trained giant African rat was genuinely fascinating.

While perhaps not regarded as being quite as cuddly as our canine equivalents, we discovered these specialist sniffers are equally as accurate, fast and cost-effective in their ability to seek out volatile organic compounds from human sputum samples. Unlike the work in cancer detection, the smell of the tuberculosis bug (called mycobacterium tuberculosis) is defined from a known pattern of volatile organic compounds.

Importantly, the Apopo rats are already engaged in successful secondary screening programmes for tuberculosis

in Tanzania, and are saving human lives now.

The complexities of decoding cancer was an absorbing subject, and was explained with clarity by **Professor Mel Greves** from **The Institute of Cancer Research, UK**. The audience was totally engaged as we were methodically taken through the natural history of cancer, from a single mutated cell, to full metastasis. The challenge, as Professor Greves explained, is identifying at which stage in this progression the animals are detecting the disease.

We learned that every cancer patient has a genetically unique disease, as the mutational changes in affected cells alter the DNA sequence, and that cancers work in an "ecosystem", as well as the importance of "driver" cells, and the role of founding clones in the speed and complexity of mutations. This all emphasised the need for monitoring to catch early disease and, hopefully, improve prognosis.

The next topic concerned nanotechnology, with a presentation by **Professor Russell Cowburn** from the **University of Cambridge, UK**. We discussed materials that were far smaller than a pin head – with dimensions somewhere between the size of a red blood cell and an atom. Crucially, materials adopt different properties down at this size. It is hoped that by accessing these properties nanotechnology will help to determine the exact chemical composition of the volatile organic compounds that are associated with different cancers. Several areas of nanotechnology were identified as of potential interest for Medical Detection Dogs (microfluidics,

## Ali Clarke reports on the Inaugural International Conference on Medical Bio Detection at Emmanuel College, Cambridge

magnetic nanoparticles, CMOS biosensors, and quartz crystal microbalance).

These methods of measuring particles could eventually lead to better, cheaper, smarter, and cleaner diagnostic products – ultimately creating the “electronic nose”.

**Dr Cynthia Otto** from the **School of Veterinary Medicine, University of Pennsylvania, USA**, shared her experiences on the methods and challenges of canine detection of ovarian cancer via screening blood plasma samples. Interestingly, Dr Otto measured the effect of a dog’s physical activity before it started working on the screening samples, and the results suggested that the dogs gave higher sensitivity results before lunch. Dr Otto also observed when the dogs’ used their water bowl, possibly to cleanse their palettes.

**Mo Mauer** and **Erin Jasper** from **Assistance Dogs Hawaii, USA**, spoke in detail about the canine detection of urinary tract infections. Their study was borne out of observing dogs that were already working as partnered assistance dogs to people with neurological/spinal injury, where two dogs spontaneously alerted the presence of a urinary tract infection. As the usual warning signs for urinary tract infection are often absent in people with paralysis, infection can quickly spread into the kidneys, or may enter the bloodstream (called sepsis), and persistent or recurrent urinary tract infection can increase the risk of bladder cancer.

**Dr Fabio Grizzi** and **Dr Gian Luigi Taverna** from the **Humanitas Clinical and Research Centre, Milan, Italy**, addressed the conference on their study to investigate canine detection of human prostate cancer by screening urine samples. Their report (titled “Olfactory System of Highly Trained Dogs Detects Prostate Cancer in Urine Samples”) was published earlier in 2015 and, after reading about the high sensitivity and specificity rates described, it was most interesting to see the video clips of these dogs in action and hear Dr Grizzi in person.

**Dr Carola Fischer-Tenagen** from the **University of Berlin, Germany**, gave a

spirited, considered and, at times, amusing review on the challenges of training dogs to detect bovine (cow) ovulation from saliva. As a bovine practitioner with a keen interest in search and rescue dogs, Dr Fischer-Tenagen was seeking an effective method that could identify the small time window that occurred in which to inseminate a herd of cows. However, it turned out that the practical challenges of bringing dogs into a working dairy farm were considerable.

Dr Fischer-Tenagen echoed the common issue across all of the studies discussed: we know the dogs are detecting “something”, but we don’t yet know its identity or chemical structure.

**Susana Soares**, a UK designer, explores collaborative frameworks between design and emerging scientific research. Ms Soares entertained delegates with a presentation on the scientific potential of bees in the detection of human disease. Ms Soares explained that a bee’s antenna has 170 odour receptors, and gave details of how a bee could be trained to produce a Pavlovian response to a particular scent in around 10 minutes. Some visually intriguing interlinked glass chambers were used to demonstrate this novel concept.

**Dr Clara Manchini** from the **Open University, UK**, demonstrated work on a new canine interface, assisted by canine members of **Medical Detection Dogs**.

Dr Manchini’s team are collaborating with Medical Detection Dogs to develop equipment used during the practical screening of human samples. The aim is to determine how confident a dog is when it is indicating the

presence of a positive sample. The current system only allows for a “yes” or “no” response from a dog. However, via use of special pressure plates, this new research is investigating whether a dog can produce different degrees when signalling, without disrupting the screening process. Dr Manchini explained that each dog differs in their engagement with the pressure plate. As the intensity of each dog’s response is digitally recorded as a graph, the shape of the graph reflects how confident the dog is in their response.

Assessing more nuanced responses should increase the reliability associated with dogs’ responses. The next step for the team is to develop a system to analyse the statistical information produced during the study.

Lead Paediatric Diabetes Specialist Nurse, **Claire Pesterfield**, from **Cambridge University Hospitals NHS Foundation Trust, UK**, spoke with passion and humour on the value of Medical Alert Assistance Dogs. These dogs have a tremendously positive effect on the client and their family, producing both physical and psychological improvements.

**Oliver Gould** from the **University of the West of England** eloquently summarised the research of canine olfactory differentiation of cancer with a review of key research papers.

This most valuable review of current evidence based research summarised the challenges faced by researchers in this field and gave food for thought of ways to improve the credibility and reproducibility of results in the future.

*“It was so important for us to get together and share our knowledge and experience – everyone has been working in their own bubble. The Bio Medical Group now has a steering committee that will facilitate world group engagement which undoubtedly will improve problem solving, promote better research and enable further defined progress. It is a huge step toward our search for faster, reliably accurate method for the early diagnosis of cancers.”*

**Dr Guest**, Chief Executive and Director of Operations

# Archie & Domino

You'd be forgiven for thinking that this was just another happy, healthy child with his four legged companion. But you'd be wrong because the little boy has diabetes and the dog his lifesaver.

## “ Before Domino we were in a void ”

A long-awaited only child, Archie started drinking enormous quantities of milk and water at 11 months; two months later he was diagnosed with diabetes. It was a devastating shock for his parents, Jayne and Bill Dawson and in that instant, their lives changed forever. Jayne gave up her job as a finance consultant, re-training as a yoga teacher while Bill decided to be a full time father. Their lives revolved round their sick child and as the years passed, they struggled on feeling very alone and scared. Archie would hypo every night which meant little sleep for his parents, and they would worry about things like the insulin pens giving him too much and as a two year old toddler thinking he had eaten when he hadn't.

One day Bill's mother read about Medical Detection Dogs and from that day, all their lives changed for the better. They were warned that it would be a long, slow process because Archie was so young but that eventually he would receive a dog. In February 2015 Archie was matched with Domino, a two year old Labrador and after a 10 day home visit, he became a permanent member of the Dawson family. Bill had grown up with dogs but Jayne had not and was in fact quite nervous of them after a bad experience when she was young. She says, "Not knowing about dogs was a bit scary and I never realised how much hard work is involved – in trusting a dog. But Domino was just wonderful. He's not a dog, he's a little person, like another child, like he's always been there. He is so much a part of the family unit now."

Domino has transformed the lives of Bill and Jayne and, most importantly, Archie. "Because Archie was diagnosed so young, we don't know life without diabetes," explains Jayne. "Before Domino we were in a void, we never knew where to turn, we were unsettled. He has brought sunshine into our lives – he is the last piece of the jigsaw. Now we are

sleeping more, relaxing and feeling like a whole family. Before, we never liked to plan or think ahead but now we can see a beautiful future."

Archie tells his mum that she cannot understand what it is like to be him – but Domino does. This young dog has given him confidence and independence and everyone has noticed the difference, even in just a few months. At one time he didn't want to go to sleep for fear of not waking up, but now he sleeps like any other seven year old, albeit with a dog beside his head! He is happy now to eat different foods and make new friends. Every morning, Archie bikes to school with Jayne and Domino running to keep up. At the moment Domino does not stay in school as Archie has a full time carer to check his bloods every hour. Also, it is felt that Domino's most important work is at night and as he is still in training, working a 24 hour day might be too much for him. After school, Domino sits on the touchline while Archie plays rugby or tennis; the latter is agony for him as he adores tennis balls but manages to show great self control in leaving them alone! "We call them the Dynamic Duo," laughs Jayne.

Before Domino, Archie would not leave the room without one or both of

his parents. Now he plays happily in his bedroom and Jayne and Bill can hear him chattering away to Domino or even reading to him. Although he is so young, Archie understands fully that Domino is there to save his life and he has proved his worth with 1,300 alerts since his arrival in July. When Archie is really low, Domino will jump up and down and if he thinks the message is not getting through he either barks or stands and stares intently. "He is priceless," says Jayne, "and the physical and emotional effect he has had on Archie is better than any medicine. Thanks to Domino, Archie has a better quality of life than we ever imagined." Domino does his job wherever they go – even settling down to watch the film at the cinema. "Everybody adores him," says Jayne. "He knows he's handsome – he's a right little diva!"

But the last words must go to a brave little boy: "Domino is lovely, he's cute and fluffy. He is my best buddy and he helps me feel safe. If I'm not well he'll tell Mummy and Daddy and I won't have to go to hospital. I can eat, go to bed and feel safe and happy." Just like any other seven year old who runs and plays and giggles on the beach with his very best friend...



DOMINO AND ME BY ARCHIE

# Shute for the Moon

Dawn Taylor, Volunteer Coordinator talks about one of her special volunteers Heather Shute



HEATHER SHUTE BEM

Heather Shute is one of the nicest and most inspirational individuals I have had the pleasure of meeting, in my role as Volunteer Co-Ordinator for Medical Detection Dogs.

Heather heads up our Oxon and Cotswold Regional Fund Raising group and regularly banks £1000 a month from their activities.

Heather's involvement with the charity dates back to 2008 when Medical Detection Dogs was founded. Having a long history of fund raising for Hearing Dogs for Deaf People Heather was familiar with our founder Dr Claire Guest and was impressed by her inspirational leadership and personal determination. Heather tells me it was an easy decision for her to transfer as a volunteer to Medical Detection Dogs and a very successful partnership evolved.

The Oxon and Cotswold group has a core of six individuals who can be relied upon to turn out in all weathers to support the Charity. They are supported by a wider group of up to 30 individuals, some of whom may only be able to support one event a year. Heather knows each of her volunteers and which activities they enjoy and will only invite them to relevant events meaning everyone

enjoys what they do and are more inclined to participate in the future.

When asked about the secret of her amazing success Heather is extremely modest and it falls to other members of the Oxon and Cotswold group to say that Heather has an amazing determination and drive. As soon as one event is successfully completed and participants thanked, Heather is already planning the next event. The group tell me it is impossible not to be swept along with her amazing enthusiasm and infectious good humour and I would agree. The Oxon group arranges at least one event a month which might be a traditional street collection or perhaps one of Heather's much appreciated pudding evenings or all day coffee mornings. Heathers group also arranges a large number of talks to local groups which helps to raise, awareness of the charity and much needed funds.

Heather and her group raised the funds to sponsor a medical alert assistance dog. The puppy was named Magic and trained as a diabetic alert dog – and is partnered with Claire Moon in 2013.



CLAIRE AND MEDICAL ALERT ASSISTANCE DOG MAGIC

To mark her 70th birthday Heather celebrated with a daring sponsored rock abseil in Derbyshire, with her son Joe, raising more than £1000. In 2014 Heather took part in the Swanbourne Endeavour a 5km challenge through obstacles including mud, water and 12 volt hanging electricity cords!

In 2015 Heather's volunteering achievements were recognised with the award of the British Empire Medal. To date she has raised an amazing £65,000 for Medical Detection Dogs.

Heather says 'it is a real privilege' to be part of Medical Detection Dogs and loves visiting the Centre at Great Horwood finding it inspirational and motivational.



HEATHER SHUTE (LEFT) AT THE SWANBOURNE ENDEAVOUR

# Kate Humble

## FIFTEEN TO ONE



Photograph by Claire Richardson

When TV presenter Kate Humble, best known for hosting wildlife programmes such as *Springwatch*, *Countryfile* and *Lambing Live*, first visited the Medical Detection Dogs centre in May 2015, she was “utterly blown away” by what she saw and had no hesitation in becoming an ambassador for the charity. “Dr Claire Guest’s story is incredible,” she said later, “and her unshakeable belief in what she is doing and how she and her team are continuing to push boundaries and defy scepticism left me in awe!”

And just a couple of short months later, Kate was able to make a huge difference to the charity’s bottom

line, winning a staggering £26,000 on the Channel 4 quiz show *Celebrity Fifteen to One* – the highest amount ever won for a charity on the programme.

You might be forgiven for thinking that someone who has travelled across the Middle East, lived with nomads, and descended to the bottom of the sea in search of sharks (to mention just a few of the experiences Kate has grappled with in her day job) would be unfazed by a mere quiz show – even one frequently referred to as the toughest on television. However, going head to head with the likes of Ken Livingstone and Meera Syal, in

front of a studio audience, was daunting – so much so that Kate, who opted for travelling instead of university, told presenter Adam Hills that she couldn’t have been more nervous had she got a double first!

The format of the show is simple. Fifteen contestants are given three lives each; if they answer a question incorrectly, they lose a life; if they lose all three lives, they are eliminated. The last man (or woman) standing is then asked a series of questions, clocking up prize money for their chosen charity with each right answer.

Halfway through the show, things weren’t looking good for Kate. Having already lost two lives, she was nominated to answer the next question: in what European city were film director Roman Polanski and actress Emma Watson born? Knowing this was make or break and that a wrong answer would put her out of the show, Kate took the plunge and said Paris. The right answer!

And from then on there was no stopping her as she proceeded to nominate (and dispense with) a string of other contestants, finally taking home a windfall for Medical Detection Dogs.

And this donation couldn’t have come at a better time, with the charity preparing to embark on the world’s largest ever prostate cancer trial using dogs. The work has the potential to be truly ground breaking in the detection of prostate cancer, for which current diagnostic testing is extremely unreliable, and also represents a huge breakthrough in overcoming the scepticism of the medical establishment.

To give the final word to Kate: “If dogs are able to detect cancer through the power of their incredible sense of smell – and all the research to date suggests they can – who are we to turn our noses up at it?”

# A Tale of a Very Long Bike Ride

By John Scholtens



I had always harboured the desire to cycle from one end of the UK to the other in my personal list of challenges but not possessed the type of road bike to accomplish it. In May 2014 that changed when I bought a carbon composite road bike and started training. I had really caught the bug of road biking and soon began to turn my thoughts to cycling the “End to End”. Funnily enough, the most difficult decisions were which direction, Land’s End to John o’Groats (LEJOG) or vice versa, and over how many days? I researched it online and found there were advantages and disadvantages to both routes. In the end, I decided to do the John o’Groats to Land’s End (JOGLE) option thereby getting the long drive to the north Scotland out of the way at the start but accepting the challenge of battling the prevailing south westerly winds. I also concluded that 12 days should present a sufficient challenge to avoid it being a physical torture but also allow for extra capacity to see the sights along the way. Fortunately, my wife Elaine, 17 year old daughter Phoebe and our Border Collie Floss, volunteered to support me from our mobile home. Additionally, my friend Peter Hayward agreed to cycle with me for the first four days and the last three. The plan was hatched! We decided it would be an excellent opportunity to raise money for charity. Having had the privilege of attending a presentation

evening explaining the phenomenal work of the Medical Detection Dogs charity we decided to support this very worthy cause.

I ramped up my training steadily over the following year, eventually cycling around 750 miles a month with occasional consecutive day long rides between 70 and 90 miles to replicate what I would face. Although I had a background of over 30 years of long-distance running this was new territory and I was surprisingly apprehensive. Armed with key advice from seasoned cyclists such as purchasing really high quality cycling shorts and attendant chamois cream plus trying to relax on the handlebars over the countless long miles, I soon began to relish the challenge. Near the end of my training, my wife suggested something which was to prove prophetic. Wouldn’t it be wise to train some days in the rain? Hitherto, I had timed my rides to avoid getting wet wherever possible but I agreed reluctantly that that would be sensible and duly searched out the downpours.

August arrived and at last the challenge beckoned. We drove up to John o’Groats in the mobile home with a mixture of excitement and trepidation. It now dawned on me that it really was a long way to Land’s End. However, the 6,000 miles and 268,000 feet of ascent that I had done in training with my road bike now provided ample motivation for me to get on my way! I had already told several people that there was no going back especially as I had already achieved 75% of my fund-raising target and I was

not in the business of giving refunds. My wife and daughter were already enthusiastically searching out donations from tourists that carelessly got too close to our little group at the famous John o’Groats signpost.

Peter and I waved a cheerful farewell and set off due south. The road climbed away from the coast and I felt full of energy and was now very keen to get on with it. The smell of sea air mixed with that of the peat from the surrounding moors was exhilarating and it felt really good to hear the wheels drumming on the road and watch the pedals turn over rhythmically. There were few trees in this far-flung northern reach of the mainland but passing interest of isolated crofts, farms and small villages. Soon the North Sea came into view on our left side and after passing through Wick we encountered the first few hills. All was fine until we hit the first two serious hills at Dunbeath and Berriedale. The latter, a concerted long hill at 13% gradient was a serious test and soon we were in the lowest gear and grinding our way up. The challenge had begun in earnest. The trick was to change down early and avoid getting into either oxygen debt or lactic acid cramp by steady pedalling rather than throwing the kitchen sink at it from the start and disintegrating part way up. I was relieved that I reached the top without getting off and pushing my bike. When we reached the idyllic coastal camp site at Dornoch we were both elated and relieved, with 80 miles and 3,700 feet of ascent, the cobwebs had truly been dusted off.



## “ It surely is a b\*\*\*\*\*y long way with only 2 wheels on your wagon ”



The next day all changed – the weather was despicable. Driving rain, brisk wind and mist – welcome to Scotland! On with the cagoule and back in the saddle to tackle the elements as well as the distance. Fortunately, the weather eased by the afternoon and glorious scenery took over, bolstering our renewed enthusiasm. The motor home came into view as we reached Loch Ness and with it a welcome routine of extravagant lunches to recharge the energy reserves. The challenge was really underway and after lunch we sped along the shores of Loch Ness casting occasional furtive glances across the water for Nessie before reaching Fort Augustus in glorious sunshine for our overnight stop.

The next two days in beautiful weather sped by with the Glencoe section the highlight of the whole trip. Then the elements decided to throw almost everything at me as I cycled through Lancashire. I was cycling on my own for five days and was subjected to gusty headwinds and a proverbial deluge. The long climb over the Shap hill sapped my strength and I gritted my teeth as my head dropped and I focussed on the road passing beneath my wheels. Fortunately, the mobile home with its warmth and delicious lunches picked up my flagging spirits. The beauty of the Welsh borders proved a tonic over the next two days before I reached Bath.

Now came the biggest day, clocking almost 93 miles and 5,300 feet of ascent but with only three days to the finish and with Peter re-joining me to provide welcome moral support, the finish was almost in sight. Now came the sting in the tail as the Devon and Cornwall roller coaster threw 8,200 feet of climbing at us coupled with strong headwinds and driving rain. I consoled myself with the thought that it wouldn't be fun if it was too easy and dug in. Avoiding the potentially dangerous A30 was a route-finding challenge and we duly found ourselves following the exposed north coast of Cornwall. On one monumentally hard section on the last day Peter asked me quizzically what speed we were doing. I glanced down at my Garmin

computer and replied “6 mph” and back came the repost, “we will take all of today and tomorrow at this pace”! Fortunately, as we got closer to Land's End the elements eased a little and occasional hedgerows and stone walls provided us shelter. Thankfully, the last two miles were trending downhill. We had however managed to get ahead of our support who were battling traffic jams and end of the working day traffic, so we stopped just short of Land's End, contemplated the JOGLE achievement and savoured the scene. Then came the cruise to the famous Land's End signpost with unbelievable elation mixed with relief. It surely is a

b\*\*\*\*\*y long way with only two wheels on your wagon from one end of the UK mainland to the other. I had done it! The many visitors to the landmark were ever so generous and donated to commemorate my feat in our collecting pots. Our overall donation total had now reached almost £1,300 which exceeded my £1,000 target and made me very happy indeed. 970 miles in 12 days and I am proud of the fact that I never got off my bike on any hill proving that there is still life in the 60 year old dog even if my sense of smell is not as acute as it was. A superb challenge for a most worthy charity – job done.



# Accept the Challenge!

Achieving new goals, team building, embracing different experiences ... these sound like buzz words for a job application. Don't be deceived; Challenge Events give everyone the opportunity to realise all these goals, at the same time as raising money for Medical Detection Dogs.

Whether you are an experienced athlete, cyclist or trekker, or a novice, there is something for everyone. Gordon Moore from Pottersbury has run half and full marathons before, but never attempted anything as ambitious as the 100k he signed up for. The Grand Union Challenge took place at the end of June, with the start line in Paddington, London and ended up in Bletchley. Having the finishing line so close to home was a big attraction for Gordon as he knew he wouldn't have far to stagger for a hot shower!

The route followed the Grand Union Canal and offered options of walking, jogging or running either 25k, 50k or 100k. Gordon chose the toughest of these ... to run. The partnership of fundraising whilst trying something new is a potent one, and Gordon describes running the 100k as "the ultimate running challenge". It was a chance conversation with a Medical Detection Dogs' fundraiser that led to his commitment, and getting involved in the event was the easy bit for Gordon. Unsurprisingly, Gordon describes devising a training programme as demanding.

"The main issue was that a long training run of 30 miles plus can take five hours and it's difficult to find time."

He feels he did not train as often as he would like, but possibly only Mo Farah would have this luxury! By setting himself realistic goals of breaking the race down into 10-15km sections with short recovery times he designed a manageable training schedule.

Dehydration is the runner's enemy, and the race day weather was hot and sunny which posed additional challenges. Gordon still completed the event in a hugely impressive 15 hours and 1 minute. He also raised £2,020.50 for Medical Detection Dogs.

Although to some, running 100k might seem a form of torture, Gordon describes the comradeship and support from fellow runners as being one of the best bits. After bonding with another athlete over blisters and sharing blister patches, he ended up running alongside her for the majority of the race.

"Without Lucy I am not sure I would have finished. When I got low she helped me and vice versa".



GORDON MEETING MAC

Gordon is committed to entering more events for Medical Detection Dogs, although he is confident he will not be attempting another 100k run! Perhaps he could try the walk next time!

Back to that job application, it is worth remembering that as Medical Detection Dogs seek to achieve new goals, attributes such as determination and resolve are crucial. Team building and partnerships between handlers, trainers, owners and dogs are skills which make our charity the success it is, and taking part in a Challenge Event epitomises the ethos of Medical Detection Dogs.

**Go on ..... have a go!**

To find out more, take a look at the Challenge Event page on our website.

[medicaldetectiondogs.org.uk](http://medicaldetectiondogs.org.uk)



Raise funds for Medical Detection Dogs by donating good quality, reusable and clean clothing! When you're ready Clothes For Charity will collect from your home or workplace! Request a bag at: [www.clothesforcharity.org.uk/charities/medical-detection-dogs](http://www.clothesforcharity.org.uk/charities/medical-detection-dogs)

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Giveacar is a not-for-profit social enterprise that can turn your old car into cash for Medical Detection Dogs. Giveacar will arrange free collection, then either sell your car at auction or scrap it with the proceeds raised coming to us. Please visit [www.giveacar.co.uk](http://www.giveacar.co.uk)

# A selection of Challenge Events for 2016

## The Roubaix Challenge

7th - 11th April 2016



This unique cycle challenge is set to be the most exciting cycling opportunity yet! The Roubaix Challenge is a fantastic 155 mile bike ride for charity, over two days from London to the beautiful town of Lille in Northern France. Lille is very close to the town of Roubaix, most famous for its epic pro cycle race, the Paris-Roubaix.

After your two day challenge to Lille, on Day 3 you have the option of taking part in the 'Paris-Roubaix Challenge'; one day before the professional race, amateur cyclists can sign up to ride on the same route as the Paris-Roubaix elite cyclists.

The ride will offer some of the same cobbled sections that professionals face the next day and you can choose between three distances:

163km (approximate distance)

139km (approximate distance)

70km (approximate distance)

After completing your chosen route and after a well-earned rest, on Day 4 you are free to watch the pros ride and cheer your favourite riders as they race along the infamous pavés that you took on yourself the day before! This is always an exciting race as Paris-Roubaix remains one of the most memorable classics.

**Booking and information visit:**

[www.globaladventurechallenges.com](http://www.globaladventurechallenges.com)

## Just Walk

7th May 2016



Walk the beautiful South Downs and West Sussex countryside, starting and finishing from Goodwood Racecourse near Chichester, all the routes are circular! Join this scenic walk to raise money for Medical Detection Dogs.

Choose a challenge distance to suit your fitness level or goal - 10km, 20km, NEW 30km, 40km or the BIG 60km! There really is something for everyone.

They are also doing a Twilight 10km Just Walk route.

Just Walk starts and finishes from the dramatic backdrop of Goodwood Racecourse, near Chichester in West Sussex. All of the routes are circular, and take on the rolling hills and landscape of the West Sussex Countryside including sections of the South Downs National Trail on most routes.

**Booking and information visit:**

[www.acrossthedivide.com](http://www.acrossthedivide.com)

## Euro City Cycle

11-15th May 2016



Join us as we cycle for charity 270 miles, in 3 countries to 3 capitals – London, Amsterdam and Brussels.

An exciting charity cycle combined with breathtaking city sights make this a European charity challenge extravaganza! This superb charity bike ride caters for every level of cyclist. One of our newest fundraising events will see us cover approximately 270 miles with 4 days in the saddle, and takes in the rolling countryside of Essex, the plains of Holland and the sleepy lanes of Belgium. Join us for one of the best cycling challenge experiences in Europe!

**Booking and information visit:**

[www.globaladventurechallenges.com](http://www.globaladventurechallenges.com)

## 24 Peak Challenge

10th-12th June 2016 & 16th-18th Sep 2016

This exciting challenge will see us summit an incredible 24 peaks in the Lake District, all over 2,400ft with a target trekking time of 24 hours!

The Lake District is one of the most beautiful areas in the UK, filled with breathtaking mountains and valleys – it is the perfect backdrop to this awesome challenge. The days will be long and the trekking tough, but the rewards of hiking into the heart of this amazing National Park and the accomplishment of conquering 24 peaks will make your efforts worthwhile.

**Booking and information visit:**

[www.globaladventurechallenges.com](http://www.globaladventurechallenges.com)

## Edinburgh Night Ride

18-19th June 2016



Cycle 50 miles with a throng of like-minded cyclists, along the twists and turns of the streets of Edinburgh on our Night Ride – lit by the moon and lights of the city.

Taking in the iconic sights of this beautiful city – Arthur's Seat, The Castle, The Forth Bridges – our route has stunning night views of the city.

This is a rare chance to explore the nooks and crannies of the Scottish capital at a time when much of the traffic has abated – enjoy the tranquillity of the Georgian streets as we pass through in the moonlight. Jump on your bike and let's get cycling!

**Booking and information visit:**

[www.edinburgh-nightride.com](http://www.edinburgh-nightride.com)

## British London 10k

10th July 2016



Run the worlds greatest route! Take part in an iconic 10k run whilst supporting Medical Detection Dogs and take in some of London's fantastic scenery on route! We will support you as much or little as you like and we will provide you with our very own running vest to wear with pride on the day!

Starting on Piccadilly outside The Guards & Calvary Club, runners will pass the new WW2 Bomber Command Memorial which was unveiled by HM Queen Elizabeth 11 in June 2012, two weeks prior to The British 10k London Run in Diamond Jubilee Olympic year with Wellington Arch at Hyde Park Corner as backdrop.

Runners will pass The Ritz, St. James's Palace, Trafalgar Square, the magnificent St. Paul's Cathedral, the unique London Eye, the worlds most famous clock Big Ben, the British Houses of Parliament, the historic Westminster Abbey before finishing on Whitehall (the portal of British Government) at the junction of Royal Horse Guards and Banqueting House after passing Downing Street (the official London residence of British Prime Ministers) and The Cenotaph, the national memorial to those who made the ultimate sacrifice for their country.

**Booking and information visit:**

[www.thebritish10klondon.co.uk](http://www.thebritish10klondon.co.uk)

## Hadrians Wall Trek

Various Dates



Hadrian's Wall originally ran from coast to coast and spanned 72 miles. Today we are left with only sections of this famous landmark, which cuts through Northumberland National Park. Starting at Lanercost Priory, we trek for 25 miles (41km) alongside the only remaining sections of the wall, admiring ancient monuments, beautiful scenery and the skill of the Roman engineers who built this famous landmark, now a UNESCO World Heritage Site.

**Booking and information visit:**

[www.discoveradventure.com](http://www.discoveradventure.com)

**More Challenge Event are available on our website**  
[medicaldetectiondogs.org.uk](http://medicaldetectiondogs.org.uk)

“Polo makes me feel safe and confident I can't imagine life without him.”

GEMMA

**You can donate to Medical Detection Dogs  
by texting: PAWS36 £5 or £10 to 70070**

All the money goes to Medical Detection Dogs  
and your network provider does not charge you for the SMS

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