

# friends

Better Together

  
fitzpatrickreferrals

SPRING 2017



PHOTOGRAPHY  
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L-R: Dr Ricardo Fernandes, Dr Colin Driver, Dr Anna Tauro,  
Dr Clare Rusbridge & Dr Jeremy Rose



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World-Class Veterinary Medicine, Hope and Healing

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



# WELCOME

## TO THE SPRING EDITION OF THE FRIENDS NEWSLETTER!

This newsletter has a focus on the Neurology team and the service we offer. Although Neurology is one of the busiest services at Fitzpatrick Referrals, Dr Jeremy Rose joined the team in December 2016 and we can now typically offer routine appointments within a week. It's amazing that the team has grown fivefold since I started at our world-class facility in 2013.

Dr Clare Rusbridge with patient Pappy



We accept both surgical and medical neurological cases. The most common surgery is as expected intervertebral disc disease in small breed dogs but we also have expertise in the unusual and difficult. The rise in popularity of the Pug and French Bulldog has been mirrored unfortunately by a rise in spinal conditions associated with vertebral malformations to which these screw-tailed breeds are predisposed. Dr Colin Driver in particular has worked on finding the best surgical solution for these complex problems. Some of these conditions, for example arachnoid diverticulum and caudal facet hypoplasia, are easy to miss particularly with low field MRI and we consider ourselves very fortunate to have a state-of-the-art high field MRI machine and software in addition to a Toshiba 160 slice Aquilion Prime CT scanner.

Dr Anna Tauro, who finished her 3 year residency training in January, has been instrumental in developing imaging protocols for these dogs that present with a chronic myelopathy. Dr Jeremy Rose is passionate about surgery, especially implanted spinal procedures and brain surgery.

He is also very skilled at electrophysiology, a tool which is used to diagnose neuromuscular disorders. I am fervent about disorders of cerebrospinal fluid especially syringomyelia and neuropathic pain, itch and mutilation syndromes. Dr Ricardo Fernandes is our junior resident and is interested in imaging and management of vertebral malformation especially segmentation problems. Finally, Professor Noel Fitzpatrick has invented and deployed the most advanced spinal fusion and disc replacement implants available in the world today. These are unique to Fitzpatrick Referrals and along with 3D printing of custom implants, set us apart as a global leader in complex spinal surgery.

*The beauty of specialising in veterinary neurology is that one can do both medicine as well as surgery and epilepsy, which is the most common chronic neurological condition in dogs and cats, is our most common medical referral.*

The beauty of specialising in veterinary neurology is that one can deal with both surgery and medicine including epilepsy, which is the most common chronic neurological condition in dogs and cats, is our most common medical referral. No-one can underestimate how terrifying and upsetting it can be to witness your beloved pet in the throes of a seizure and at Fitzpatrick Referrals part of our role is

to support the client through this traumatic experience and the realisation that their animal friend in all likelihood has a lifelong condition that will require long term medication. There are two types of epilepsy referral. The first is with a view to obtaining a diagnosis and, if necessary, initiating treatment. We are proud at Fitzpatrick Referrals to have developed the MRI epilepsy protocol recommended by the International Veterinary Epilepsy Task force. The more common referral however is for the challenging epileptic case that continues to have repeated seizures despite medication. We also welcome referrals for other paroxysmal neurological syndromes, cranial nerve and balance disorders, neuromuscular disease and suspected brain complaints.

We are however part of a larger team and what makes Fitzpatrick Referrals really special is our nursing, pharmacy, diagnostic imaging, physiotherapy and hydrotherapy teams. Our dependence on the radiographer to produce such amazing images is understandable but we also rely heavily on the rehabilitation department to ensure our patients have a speedier and complete recovery with less discomfort. A physiotherapist attends our morning rounds so that we can discuss a patient's progress in detail and typically clients have discharge and post-operative appointments with their dedicated physiotherapist as well as the neurologist. For us, there is nothing more rewarding than watching the animal that no-one thought would ambulate again walk out that door with their family.



# MEET DR JEREMY ROSE

MA VetMB DipECVN MRCVS

Our new Senior Neurologist and Neurosurgeon

*Dr Clare Rusbridge, Chief of Neurology at Fitzpatrick Referrals is very excited and proud to be able to announce that Jeremy joined the Neurology team as a Senior Clinician in December 2016. "His neurosurgery skills will augment our already strong team."*

Dr Jeremy Rose graduated with merit from the University of Cambridge in 2008 with a double first in Zoology and Veterinary Medicine. In 2009 he completed a Small Animal Junior Clinical Training Scholarship at the Royal Veterinary College, London. Following this Jeremy worked in various small animal general practices throughout the UK. In 2011 Jeremy started as a Senior Clinical Training Scholar in Neurology and Neurosurgery at the University of Bristol. Jeremy was awarded a diploma of the European College of Veterinary Neurologists in October 2014, and became a veterinary neurology specialist. Jeremy then joined the University of Bristol as a Teaching Fellow in Veterinary Neurology and Neurosurgery and worked there for 24 months.

Jeremy is experienced and interested in all aspects of veterinary neurology and neurosurgery but has a particular interest in inflammatory conditions of the central nervous system, including steroid responsive meningitis-arteritis and polyradiculoneuritis, as well as spinal stabilisation surgeries.

*"I am really excited to be working amongst world-renowned specialists and alongside an amazing support team to offer the best possible care to patients at Fitzpatrick Referrals."*



## IN THE SPOTLIGHT

Taking time to get to know more about the people behind the referral!

|             |   |
|-------------|---|
| NAME        | Anne O' Meara                             |
| AGE         | 55  |
| TRAINING    | Royal Veterinary College                  |
| FIRST JOB   | RSPCA Harmsworth Hospital in North London |
| CURRENT JOB | Goddard Veterinary Group, Ewell Branch    |

### WHY ARE YOU A VET?

As the oldest child I always ended up looking after the family pets. I found an interest in Biology, started helping at the local veterinary practice and never lost that focus.

### BEST PART OF YOUR JOB?

Getting a good outcome from a challenging case while working with some great colleagues.

### THREE WORDS THAT DESCRIBE YOU?

Hopeful, aspirational and busy.

### WHO IS YOUR HERO?

Leonard Cohen - getting old can be cool, although my household would definitely say Stephen Gerrard!

### MOST UNUSUAL ANIMAL YOU HAVE TREATED?

My husband does a lot of work with Reindeer and I often get roped in at the weekend.

### YOUR PASSION?

Riding my Spanish horse Valentino.

### WHAT KEEPS YOU AWAKE AT NIGHT?

Like most vets I'm sure... your sickest patients, and difficult or sad cases.

### IF YOU COULD BE GRANTED A WISH, WHAT WOULD IT BE?

To have the best advice for every patient to optimise their care.

### WHAT WORDS WOULD INSPIRE A CHILD TO BECOME A VET?

Work hard and keep following the interesting people in life.

### WHAT DOG BREED WOULD YOU BE?

If they say dogs are like their owners then my Parsons Jack Russell. Lots of energy, a sense of humour and trying to be good... most of the time.

### WHAT WOULD YOU BE IF NOT A VET?

Floristry sounds like a lovely job but I'm sure I'd end up working with animals somehow.

### WHERE IS YOUR HAPPY PLACE?

In Windsor Great Park riding my horse.

### DO YOU NEED TO LOVE ANIMALS TO BE A GREAT VET?

Of course! How could it be otherwise?

### YOUR DREAM DESTINATION?

St Martin de Belleville in the French Alps, exploring the mountains in the summer and skiing in the winter.





As seen in the Vet Times **Times**<sup>veterinary</sup>

# IN CONVERSATION...

THJ Watson BVM&S MRCVS, Clinical Director of Medina Veterinary Group, has put forward his questions to the Fitzpatrick Referrals Neurology team that every primary care vet will want to know. Together, the team took some time out to answer these 10 questions. A big thanks to Tim who took time out of his busy schedule to share his thoughts!

**Q** Should MRI be in the "minimum database" for all epileptics, just the insured ones, just the ones that fail to respond to first line therapy, or any epileptic that initially presents over the age of four?

**A** It's a good question and actually quite difficult to answer! The likelihood of structural CNS pathology in a young to middle-aged dog (older than 6 years) with intermittent seizures (i.e. not clusters or status) and a normal inter-ictal neurological examination is actually very low; in one study abnormalities were only found in 3% of MRI scans from this cohort. So the argument in those cases isn't particularly strong, however, a normal MRI is always useful and it can be a really useful as a 'baseline' before treatment, particularly in patients we predict will have problems with seizure control. This would include patients who initially present epilepsy with a high seizure density and those of a breed who may be expected to suffer drug-resistant epilepsy more commonly. It may be that with time and more sensitive MRI technologies that we start to recognise abnormalities in epileptics that can help treatment options. MRI is always recommended in epileptics greater than six years as sadly some brain tumours and inflammatory conditions may be expected around that time.

**Q** Is a percussion hammer really a necessary piece of standard kit or will my blunt pair of mayo scissors work just as well?

**A** A few of us find the handles of heavy scissors to be useful but it is easier with a hammer and compared to most veterinary equipment this is a cheap addition to your kit. Having the limb relaxed and in a recumbent position, testing both the dependent and non-dependent limb, is key. One of the most important but sadly often missing tool in a standard kit is a bright penlight – it is not unusual for a pupillary light reflex to be reported as reduced when in fact the pupils were dilated because the animal was frightened and the battery in the freebie penlight picked up at that conference is "on its last legs".

**Q** I have a Bell's Palsy case and my homeopathic colleague has recommended "Causticum 30C." Is there any evidence that this will be of benefit or is it just something to do whilst it resolves by itself?

**A** We're not aware that Causticum 30C has been shown to be beneficial in improving the rate of resolution of idiopathic facial paralysis. To date no therapeutics have proven to help recovery in dogs with idiopathic facial paresis. Some cases will unfortunately not recover from this problem while the majority will improve with time although this can take months. It is not unusual for bilateral disease although not simultaneously.

**Q** Is SRMA in Duck Tolling Retrievers really triggered by vaccinating prior to 16 weeks of age or is it just a breeder's thing?

**A** SRMA is a poly-systemic immune-mediated disease; just like any other immune-mediated disorder, there may be a prior stimulus to the immune system to initiate the aberrant response. In the Toller breed genetic studies have indicated several loci that increase risk of this and other immune mediated diseases. However environmental influences are undoubtedly important in triggering disease and we have seen several dogs with minor inflammatory conditions like tracheobronchitis and gastroenteritis go on to develop SRMA. So we could not definitively say that there is not an association with vaccination, although has not been proven. In people the link between vaccinations and immune-mediated diseases is controversial and in dogs one recent study showed no significantly increased odds of having SRMA and being vaccinated in a 6 week period prior to development of the disease compared to a cohort of control dogs. However occasionally we do see recurrence of SRMA soon after booster vaccination and so we often recommend caution in revaccinating susceptible dogs until they have been in remission for at least 12 months.

**Q** As a referral neurologist, is receiving videos of cases on email just a pain in the mail server or is it really of use?

**A** Seeing videos definitely helps us form better advice for our referring vets - but only when we have the appropriate information to support the videos. In particular the signalment, when the events occur, if they are stereotypical, if the dogs can be distracted, what the neurological exam is like etc. One recent study showed that neurology specialists only agree on a diagnosis from videos alone in around 30% of cases so as long as we understand this limitation they will be useful and can give important information. Plus the really interesting ones (when consented) can be stored for CPD talks! However sometimes it can be challenging time-wise to deal with complex "advice needed" emails with multiple attachments of history, laboratory results and videos that may needed to be downloaded.

**Q** Typically how long from referral do you see a neurology case?

**A** Currently, we aim to see all routine referrals within a week. We prioritise urgent and emergency referrals and see them at the first opportunity.

**Q** I have a 14 year old female (N) Labrador with acute collapse, nystagmus and vomiting given the acuteness of onset should I 1) sit on it and wait for it to recover from assumed vestibular disease or 2) refer urgently to check for a central lesion?

**A** This is where the neurological exam and history are essential so you can localise the case and order the most likely differentials to decide which, if any, diagnostics you want to consider. The primary information would make you localise a cerebellar-vestibular lesion but the key distinction is whether this is central or peripheral. Central lesions should be diagnosed in the presence of abnormal mentation, abnormal proprioception, cranial nerve deficits (above and beyond those affecting the facial nerve or sympathetic



Dr Clare Rusbridge in consultation with patient Pappy





L-R, Dr Jeremy Rose, Dr Clare Rusbridge, Dr Colin Driver,  
Dr Anna Tauro and Dr Ricardo Fernandes

input to the head), a nystagmus whose fast phase is not in the opposite direction to a head tilt and any other CNS signs on exam. They should also be suspected with a vertical nystagmus. In the absence of these signs a peripheral vestibular lesion should be suspected. In this situation with an acute history the most likely differentials would be idiopathic, inflammatory/infectious, traumatic and toxic. If you have nothing to suspect a differential other than idiopathic waiting would be the best thing to do. If the patient does have idiopathic vestibular dysfunction improvement should occur over a short space of time without therapy.

**Q** Are there any pointers as to prognosis for recovery in acute onset vestibular disease?

**A** There are no definitive pointers to prognosis for recovery in acute onset idiopathic vestibular disease.

**Q** My patient with presumed epilepsy is way below the "therapeutic range" on testing phenobarbitone levels but when I cease the drug it immediately starts fitting again. Should I be concerned that I am working on a clinical response rather than "therapeutic level"? And if not, is there any point in a minimum therapeutic level being stated?

**A** Therapeutic ranges for phenobarbital were developed based on the pharmacokinetic in a small number of dogs. As such they cannot be relied on

for the total population of dogs seen on this drug. As a result you are better working on a clinical response in your patient. The therapeutic serum concentration are important for monitoring for risk for entering the toxic zone of Phenobarbital, deciding a drug has failed in the treatment of seizures and having a baseline so if seizure frequency alters you can assess if 'resistance' to the drug has developed. It is also worth saying that a vast majority of dogs require a serum concentration mid-way in the therapeutic range i.e. approximately 25mg/l or 120umol/l.

**Q** Does Imepitoin offer any real value over traditional phenobarbital treatment? Every patient I have used it on seems wobbly for a couple of weeks, is this normal?

**A** Case-selection is very important when selecting an anti-epileptic drug, as every individual is different. As a more targeted anti-epileptic drug, Imepitoin has a favourable side-effect profile although as you've experienced, side effects are possible and this includes sedation and ataxia. Imepitoin is an appropriate first line therapy for patients with idiopathic epilepsy who suffer isolated, generalised seizures.

**Q** I have an insured patient with acute onset paraparesis and poor paw positioning tests. Is there any point in radiographing it prior to referral?

**A** In acute cases, screening spinal radiographs are very important where significant spinal trauma has occurred (hit by car, run head first into a door, dog bites). The identification of spinal fractures prior to referral can help us advise how a patient should be transported. Where significant trauma has not occurred, we find radiographs to be of limited value. In these cases, certain clinical characteristics are more important to the decision-making process. These include the onset (acute), lateralization (whether one pelvic limb is worse than the other), progression (whether the patient is the same, better or worse that after the onset of signs), the presence of spinal pain and obviously the patient signalment. Good examples include the dachshund that was found 'off back legs' at home one morning (radiographs to identify narrowed disc spaces or calcified discs are of no prognostic value) and the Labrador running in the park that has one affected pelvic limb without spinal pain (radiographs cannot identify vascular injuries to the spinal cord such as fibrocartilagenous embolic myelopathy).



# CASE STUDY



## LULU

### THE DETERMINED DOG WITH A BIG HEART

Lulu is a six-year-old Rottweiler cross rescue who lives with the Devine family. She was referred to Fitzpatrick Referrals by Dr Emily Capes at Park Vets in Sidcup as a weekend emergency in February 2016 with non-ambulatory tetraplegia and was admitted by Dr Anna Tauro, Resident in Neurology (ECVN).

On clinical examination, Lulu showed marked discomfort on extension and lateral flexion of her neck. Postural reactions and myotatic reflexes were absent on her thoracic limbs and reduced on her pelvic limbs. She could not stand or walk at all and needed to be carried using slings. Anna localised the lesion to Lulu's caudal cervical spine.

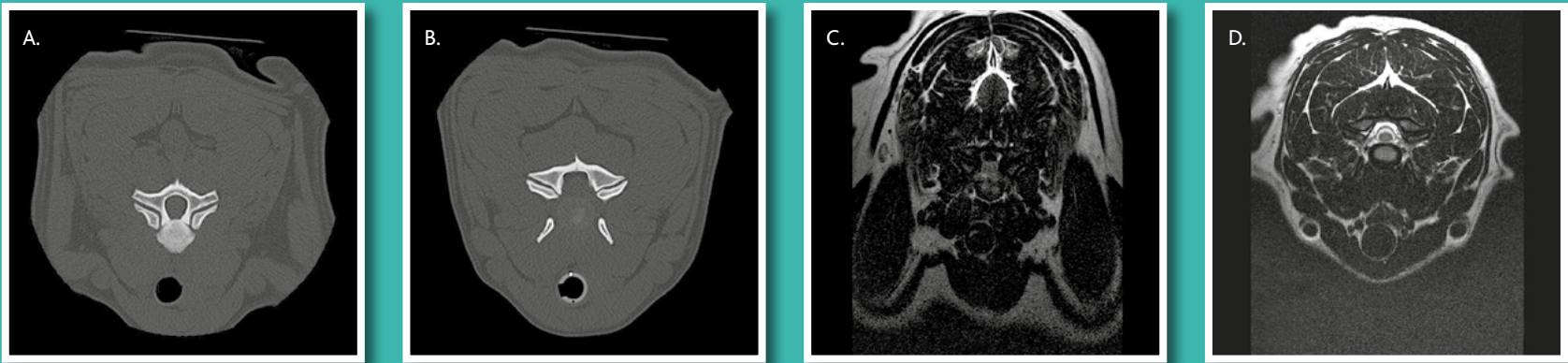
Given the presentation, there was a high suspicion that she was suffering from a form of spinal cord compression in the neck called cervical spondylomyelopathy (CSM), and in this case most likely associated with bony compression often referred to as "osseous-associated wobbler syndrome" (OAWS).

Lulu was anaesthetised and transferred to the Imaging department for Magnetic Resonance Imaging (MRI) which was carried out on our Siemens 1.5 Tesla MRI scanner. MRI is the gold standard modality for looking at spinal cord and nerve compression. This was followed by a CT scan on our Toshiba 160 slice Aquilion Prime CT scanner to allow for fine-detail viewing of the bony structures.

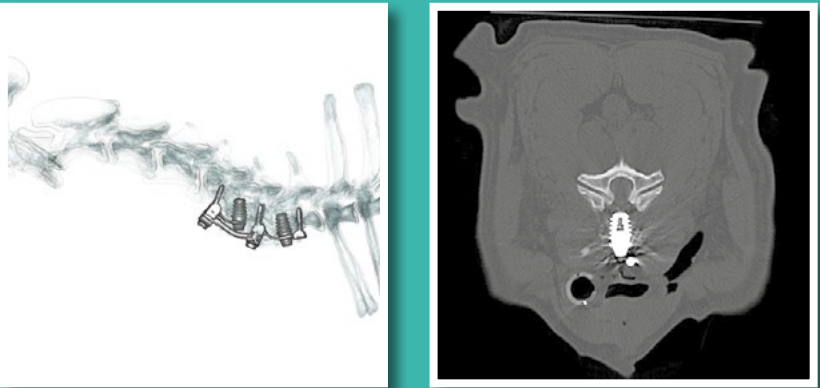


Fitzpatrick Referrals' Imaging team specialise in obtaining dynamic MRI sequences with wobbler cases. Dynamic sequences allow us to understand how the changes to the patient's cervical vertebrae interact with the spinal cord, as the patient moves its neck through flexion and extension. In addition, the traction sequences allow us to understand if the spinal cord compression is reduced when the disc space is increased, which helps us to decide which surgical procedure may be most appropriate to treat the disease. Lulu's MRI revealed dorsal, lateral and central spinal cord compression at C5-6 and C6-7 due to hypertrophy of the ligamentum flavum, hypertrophy of the synovium and bone of the articular facets and annular disc protrusion. With the MRI making it clear that Lulu was likely facing surgery to help her walk again, a CT scan of the cervical spine was carried out to allow accurate surgical planning.

Fitzpatrick Referrals aims to tailor the treatment it provides to meet the specific needs of the patient. Given Lulu's size and usually lively nature, it was felt that a custom-made implant system matching the exact dimensions of the bones in her neck would provide the best chance of a successful outcome. Anna sought the assistance of Professor Noel Fitzpatrick for surgical planning and execution. Noel is a world-leader in instrumented spinal surgery and for cases like this has developed a system of 3D printed distraction-fusion implants unique to Fitzpatrick Referrals. Lulu's images were immediately uploaded to our engineering department based in Hemel Hempstead and the manufacture of custom-made 3D printed implants commenced within 24 hours. The implants arrived at Fitzpatrick Referrals within a few days and Lulu was prepared for surgery.



Preoperative CT and MRI transverse images scans showing how compression of the spinal cord and nerve roots is apparent at the level of C5-6 (A and C), but not at the level of C4-5 (normal - B and D).



Three dimensional CT scan of the FITS-Fitzateur construct in situ postoperatively. Compression is no longer present at C5-6 and C6-7. Postoperative transverse CT scan showing how the FITS device enlarges the spinal canal and the neuroforaminae at C5-6.

A ventral approach to the cervical spine was achieved and titanium spacer devices were placed into the C5-C6 and C6-C7 vertebral disc spaces to push the vertebrae apart (FITS, Fitz Intervertebral Traction Screws). The spacer devices were linked using a 3D-printed custom linkage system of plates and rods screwed into the C5, C6 and C7 vertebrae (Cervical Fitzateur). Cancellous bone was harvested from both proximal humeri and placed between the three vertebrae to promote osseous union. Postoperative radiographs and CT scans revealed satisfactory alignment and stability.

The physiotherapy team mobilised Lulu 12 hours after surgery and got to work helping her gain confidence after surgery. She went from paralysed on all four legs to walking within two days. After three days, she had improved enough to be allowed home with analgesic medication for a few weeks.

Six weeks postoperatively Lulu was recovering well; radiographs and CT scans revealed satisfactory progression of osseous union between all three vertebrae. Lulu had mild proprioceptive deficits affecting both thoracic limbs, however she was mobilising without assistance and walking 20-30 minutes on-lead without any problems.

Ten months postoperatively Lulu is continuing to do well and enjoying hour-long off-lead walks on a daily basis. Lulu is a testament to how the individual talents of a multidisciplinary team comprising clinical neurologists, radiographers, radiologists, medical engineers, veterinary nurses, physiotherapists and neuro-orthopaedic surgeons combined to save her life.



Lulu with Professor Noel Fitzpatrick and Charlie Devine



# CLIENT COLUMN Our Stewie

By Mike & Donna Wheeler

Stewie is our first dog, and was a typical bouncing bundle of fur when he arrived with us at 8 weeks old. At only 11 weeks we noticed something was wrong - and we were devastated to be told by a specialist that he had a hemivertebrae and that there was nothing that could be done until he was almost fully grown, when it would probably be too late.

We were told that physiotherapy could help and were referred to Fitzpatrick Referrals. Here we met physiotherapist Samantha Wells (Stewie's fairy godmother!) who suggested that it might be worth having Dr Colin Driver, Senior Surgeon in Neurology, to look at him. We didn't want to get our hopes up, or put Stewie through anything unnecessary but after much deliberation we took Stewie to get a second opinion.

Colin calmly examined Stewie, and was very honest. If we did nothing, Stewie would most likely deteriorate further, yet even with surgery the odds weren't great - we should prepare for him to stabilise but not really improve. Stewie was in a custom wheel cart and was incontinent, but the concept of our permanently happy, loveable pug getting any worse made the decision for us.

Leaving Stewie for his operation was awful. He was scared, as were we - but the regular phone calls from the staff to keep us updated, as well as visiting him, made it more bearable.

In the 9 months following his surgery, Stewie has had physiotherapy and hydrotherapy every week. Much to everyone's surprise, he is now walking on all four legs and has not used his wheels in 2 months.

Colin, Sam, Amie and the team of hydrotherapists, and everyone else at Fitzpatrick Referrals are simply incredible. Sam deserves a special mention - were it not for her, Stewie probably wouldn't be with us and instead he has been given a second chance to show what a wonderful, perfect dog he is.

*"Unfortunately we are being referred an increasing number of patients with Stewie's condition and other developmental spinal conditions. This is because brachycephalic dogs with cork-screw tails such as Pugs, French Bulldogs and Boston Terriers are increasingly popular pets. Poor Stewie is one of the worst cases I have seen, in that he was virtually paraplegic by the time I saw him at 5 months of age. We tend to treat his condition by removing some bone over the compressed spinal cord before stabilising the vertebral column, as excessive bending/torsional forces appear to occur in the region of kyphosis. It has taken several months, but Stewie has against all the odds regained the ability to walk. It has been a real pleasure to see his recovery progressing under Sam's care."* Dr Colin Driver



## World-class Collaboration for Oncology & Soft Tissue team

Associate Professor in Companion Animal Clinical Studies and Head of the Companion Animal Group at Massey University, New Zealand, Professor Jonathan Bray is collaborating and sharing expertise during a 4 month sabbatical with our Oncology and Soft Tissue hospital in hope to enhance veterinary knowledge and improve animal health and welfare.

Jonathan told the Vet Times:

*"My clinical passion is oncology and soft tissue surgery, and what Professor Nick Bacon and Professor Noel Fitzpatrick are trying to create here sounds really exciting. I firmly believe optimal treatment of both advanced and uncommon companion animal oncological conditions is best achieved within a dedicated multidisciplinary unit, as is the case in human medicine."*

# Fitz & Pieces

## World Cancer Day



Dr Kelvin Kow, Emily Ryder and Sarah Holliday with patient Barry.

On Saturday 4th February, Fitzpatrick Referrals marked World Cancer Day with a series of helpful tips, stories and advice in order to demystify cancer in animals. The series involved four initiatives including...

1. Sharing the 5 early signs to look out for in order to identify cancer.
2. The 12 most commonly asked questions about animal cancer answered.
3. Barry's diary following his journey at Fitzpatrick Referrals Oncology and Soft Tissue for chemotherapy treatment.
4. The Little Book of Cancer which is the first in the series of 'Little Books' by Fitzpatrick Referrals.

To read our World Cancer Day series, please visit [fitzpatrickreferrals.co.uk/blog](http://fitzpatrickreferrals.co.uk/blog)

## Integrity and transparency was at the core of the FORWARD Symposium 2017

On Sunday 5th February, the FORWARD Symposium brought together over 250 delegates and 6 thought-leaders in the veterinary profession for one unique learning event in the agility, working and recreational dog calendar. Dr Chris Zink and Professor Noel Fitzpatrick presented to a community of veterinary professionals, dog trainers and handlers alike at the symposium held at Epsom Downs Racecourse in Surrey. Other speakers included Metropolitan Police Dog Instructor PC Ray Haggett, Founder of Vancouver Animal Massage Nicola Way, Clinical Director of Fitzpatrick Referrals Oncology & Soft Tissue Professor Nick Bacon, and also Fitzpatrick Referrals Rehabilitation. Speaking after the event, Professor Noel Fitzpatrick said: "Whether your canine friend is a working, agility, or service dog or a much loved family pet, understanding how to take them to and keep them in top condition is vital to their performance, welfare and healthful span of life. Today the Fitzpatrick Referrals' FORWARD Symposium has returned to help dedicated dog handlers, trainers and families to do just that with the support of world-class speakers, including Dr Chris Zink from the USA. Huge thanks to everyone who has joined us today to help us unite in our collective desire to move the science and compassion of rehabilitation and training conditioning forward."



Dr Chris Zink, Professor Noel Fitzpatrick, Nicola Way, Fiona Doubleday and Professor Nick Bacon at FORWARD Symposium 2017

### IN AN EMERGENCY

To discuss a case or for any urgent or emergency referrals, please call us

For Orthopaedic and Neurological emergencies  
**TEL 01483 423761**

For Oncological and Soft Tissue emergencies  
**TEL 01483 668100**

For opening times and more information visit  
[www.fitzpatrickreferrals.co.uk](http://www.fitzpatrickreferrals.co.uk)



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## World-Class Veterinary Medicine, Hope and Healing