Clinical research projects in practice

Natasha Mitchell recently completed a clinical research project while working in practice. Here, she discusses the benefits of embarking on practice-based research, and some things to consider when deciding on a project.

There are several organisations that provide grants to fund clinical research; these include the BSAVA's charity Petsavers, which funded my own project, the BVA Animal Welfare Foundation, the RCVS Charitable Trust, the Kennel Club, the Petplan Charitable Trust and the Dogs Trust. Each organisation has its own specific guidelines, and it is important to read these carefully to ensure that the project you would like to undertake falls within their criteria.

Petsavers provides grants for clinical studies, and in the past 30 years has awarded over £1.8 million to research projects. Veterinary surgeons working in practice in the UK, or in universities in the UK and Ireland, are eligible to apply.

Petsavers' clinical research project (CRP) grants support studies into naturally occurring disease in small animals. The objective of the study should be to investigate the chosen disease with the expected outcome of a change in the understanding, diagnosis or management of the condition. This should improve the current management of the condition and thus benefit pets.

There are many aspects of naturally occurring disease that have not yet been investigated in a scientific manner. The most achievable studies from private practice include prospective studies, investigations into the biological mechanism of disease and clinical trials.

Why embark on a study?

There are many reasons why a vet might wish to embark on a study. There is a huge sense of personal fulfilment to have the ability to identify a subject that might benefit our patients, and to succeed in translating that idea into a scientific project, which can be published and contribute to the literature. The study could also form part of a postgraduate programme or qualification, many of which require publication of peer-reviewed papers or the production of a dissertation or thesis.

Being awarded a clinical research grant is an acknowledgement that experts in the field think that your idea is important and worthy of support. It allows your practice to support you with time and facilities when the project would otherwise be too expensive. Other people in the practice will benefit from seeing how clinical research can be carried out in private practice, which is something not normally taught to us as undergraduates.

Working in everyday practice, observations about trends in various aspects of clinical disease can become apparent. Vets who become particularly interested in studying a specific aspect of a clinical condition need to plan how best this might be achieved. It is important to discuss observations with other veterinary surgeons qualified in the field and to review the relevant literature relating to the subject. A study then needs to be designed that is likely to achieve the aims and to satisfy the grant awardee's guidelines.

While this might seem like a difficult task for vets without experience in research, it is important to remember that vets working in general practice treat a large number of cases compared with those working in referral or university settings. Referred cases are typically those that are more complicated or resistant to treatment, whereas clinicians working in everyday practice are exposed to a much greater number of cases, which are usually at the early stage of disease. Recruitment of cases is therefore potentially easier from practice, which is a big advantage.

Depending on the study design, there may be a need to include a group of control animals, and here again vets in practice have greater access to normal animals, and often have a good relationship with owners who might allow their animals to be included. It is also possible for vets in private practice and those in academia to submit applications jointly.

Where to start?

How you identify your research project is ultimately up to you. It is naturally going to
be an area in which you have a keen interest, and therefore you will have read about the subject and have discussed the topic with vets who are more experienced in the area. A literature review is a good way to start, to ensure that the project has not been done before. Of course, not every idea can be completely innovative. If your area of interest has been studied before, you may identify a different approach or an angle that may be of better scientific value.

Once the subject has been identified and previously published work reviewed, the logistics of the project need to be worked out. This includes recruitment of cases: relevant cases can usually be identified by carrying out a search on the practice database. It is important to consider the time that you have available to invest in the study, and then to work out the time frame of the various steps that you will take until the final completion of the project. The next step is to write a research proposal, and this will be discussed in a future article in Vet Record Careers.

Ten-minute chat

James Barnett works as a Veterinary Investigation Officer for the Animal Health and Veterinary Laboratories Agency. He is also veterinary consultant to the charity British Divers Marine Life Rescue (BDMLR)

How did you get involved in marine life rescue?
I had an interest in zoo work at university and saw practice at Whipsnade and Jersey zoos. I was incredibly fortunate to land a job at Whipsnade in 1989 after only a year in practice. It was an amazing experience, and I had no desire to return to practice when my three-year contract expired. The Cornish Seal Sanctuary was advertising for a vet at the time, and I jumped at the chance. Within a year of starting, the sanctuary had been bought out by the Sea Life Centres, and within three years I was vet for the whole company. It was varied and challenging work, but ultimately took a toll on family life as I worked long hours and was away from home a great deal.

In 1998, I moved into clinical pathology, but retained my interests in marine mammals through BDMLR. I first joined up with the charity in 1992 on the trail of a beluga whale that had escaped from a Crimean dolphinarium into the Black Sea. I have been veterinary director of and latterly consultant to BDMLR for 13 years, and have helped to put together protocols for response to live-stranded cetaceans (whales, dolphins and porpoises), trained lay people and vets in marine mammal rescue and am regularly contacted for advice on veterinary aspects of marine mammals.

As a pathologist you are also involved in postmortem examinations; what’s the most unusual creature you have examined?
Where I am based in Truro, we carry out postmortem examinations not only on farm animals but also on cetaceans for the Defra-funded UK Cetacean Strandings Investigation Programme. Predominantly, we receive common dolphins and harbour porpoises, but occasionally something a little different comes along. This year, we carried out a postmortem examination on a Cuvier’s beaked whale off the north Cornwall coast; only the second in England. A couple of years ago, we had a first for England, a 4.5 m long basking shark.

What other activities does your job involve you in?
Much of my job centres on farm animal disease surveillance. We are in a big dairy cattle area, and cattle-related postmortem examinations, sample analyses, reports and advice make up a large proportion of our work. Other livestock are also received, plus the occasional alpaca, zoo animal and, of course, cetaceans and a few seals. I also manage a TB project.

What do you like about your job?
My passion is marine mammals, but I do enjoy postmortem examinations of most species; it is intensely satisfying to arrive at a diagnosis!

What do you not like?
Rotten carcases. Also, like many, I don’t enjoy long meetings or dealing with paperwork, but I accept it needs to be done. The uncertainty over the impact of the Government’s future spending cuts is also very concerning.

Why is your job important?
Disease surveillance is critical to the UK farming industry and government, to ensure we are on top of threats from new and emerging diseases and new presentations of endemic diseases. As for cetaceans, the strandings programme has helped to identify trends in cetacean mortality that have direct implications for species conservation.

What advice would you give to someone considering a similar career?
My career has been varied, and I have never really mapped out a career path. Maybe that wasn’t financially sound, but it has certainly been stimulating. So, my advice is: don’t restrict yourself in your career options. Leave college, get a good initial grounding in practice, and see what opportunities come along.

What’s the best piece of advice you were ever given?
When I was wrestling with a particular moral dilemma over a career option, a good friend of mine at church helped me put this into perspective with the words: ‘Being a Christian does not mean you have the word “mug” written across your forehead’.

What was your proudest moment?
Right up there are my first anaesthesia of an adult African elephant and rehabilitating a common dolphin in 1993, possibly the first in the UK.

... and your most embarrassing?
There is one I can’t shake off, as I keep on being reminded about it even 20 years later! We had been darting an Indian rhino in a stable at Whipsnade with antibiotics, with darting access via a small hole in the wall. On one occasion, I must have hit the pelvis because the dart bounced straight back through the window, hitting me between the eyes – luckily sideways on. Fortunately, the animal was none the worse for the experience.
Ten-minute chat

James Barnett

Veterinary Record 2011 169: ii
doi: 10.1136/vr.g7148

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