



Edinburgh Technopole Biobest

Biobest Laboratories is a specialist veterinary virology, serology and DNA diagnostics business which provides testing for a wide range of species, including fish, birds, household pets, horses and agricultural animals. **Jennifer Bunyan**, Lab Manager, discusses how Biobest has grown from five people to 50 and describes the services it offers.



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Can you start by telling us a little about the company?

Biobest was founded in 1995 and originally specialised in veterinary virology. Although that is still the core of the business, we've also expanded into other areas since then, including clinical pathology, serology and cell culture. We receive samples from pet owners, vets, farmers and pharmaceutical companies from all over the world, although most are from the UK agriculture industry.

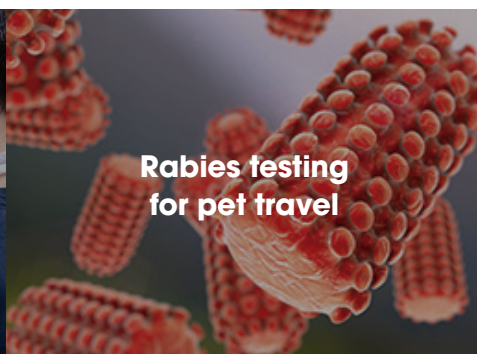
The work you conduct must be quite varied then?

Yes, we work with a range of samples – blood, serum, tissue, faeces and even stem cells – for a variety of species, for instance, testing for beak and feather disease or chlamydia in someone's pet budgie, or screening salmon for the presence of a virus.

A significant part of our business activity is rabies testing for pet travel, and we are the main provider of this service in the UK. The rest of our work is quite seasonal and varies throughout the year following the cycles of natural farming and animal husbandry. For example, we conduct a lot of bovine testing over the winter, because animals are often brought in from the fields into sheds and it's easier for vets to take samples. Then in May, we conduct a lot of raptor sexing. These birds sell for a lot of money and so it's important to sex them correctly. We can do this in a few different ways, but the easiest and safest way is by testing the eggshell as there is no interference with the bird itself. The shell is simply sent to us and we are able to extract DNA from the egg membrane to identify the sex. Our work really is very diverse!

What are you doing with stem cells?

This is a really exciting area. We first started culturing mesenchymal stem cells from bone marrow in 2005 and, at that time, the technology was mainly used to treat equine tendon injuries, aimed at racehorses rather than companion animals. It's a very successful therapy and about 75 per cent of horses are able to race again. Now, more and more people are using the treatment, and we are also seeing an increase in its popularity for dogs, particularly for treating joint problems and degenerative disease, so we are producing stem cells from adipose tissue for these cases.



Tell us about your facility at Technopole?

We moved to the site around 15 years ago after we outgrew our old premises. We needed to remain close to our rabies testing high containment laboratory – a specialist lab for handling the live virus – which would have been difficult to relocate. We have a general laboratory for serology work, a virology lab, a cell culture suite and the stem cell lab at the site, and they all operate under Good Laboratory Practice (GLP) standards. We also opened our poultry testing facility nearby in 2017.

The area itself is rich in science; Scotland's Rural College and the Edinburgh Vet School are nearby, and we have a close working relationship with both of these organisations. We're also in close proximity to the universities in Edinburgh, Glasgow and Stirling, which offer us a large pool of talent when we are recruiting.

What's next for Biobest?

We've grown over the years from a team of around five people to over 50, and we hope this continues. The industry is constantly changing, for example, we've recently seen a marked interest in rabies testing due to the uncertainty over post-Brexit EU pet travel, as customers prepare themselves for what might happen; it's possible that it might go back to compulsory blood testing for pet health certificates. It's also exciting to see where our stem cell work might go; it's really cutting-edge science, constantly evolving and improving, and it's making a massive difference to the future of these animals, especially for competition horses.



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To learn more about Biobest Laboratories, visit www.biobest.co.uk.

To find out more about the facilities and opportunities at Edinburgh Technopole, visit www.edinburghtechnopole.co.uk

