

Sector Track Record:

Veterinary

The veterinary sector covers animal health and diagnostics. This includes both companion animals (dogs, cats and horses) and production animals. Aquaculture also forms part of this sector. The sector is dominated by a small number of very large multinational companies, with a number of important regional companies and a large number of SMEs making up a smaller but still significant proportion of the overall market.

Sector lead: Rupert Osborn

Dr Rupert Osborn has worked in the field of technology commercialisation since 1996. His specific areas of expertise are transaction support (particularly licensing strategy and negotiation) and innovation management and strategy. His experience covers the commercialisation of different forms of intellectual property including trademark, copyright, plant variety right and patent licensing. Rupert has been directly involved in managing and delivering a large number of the company's projects with the animal health and diagnostic sectors over the past 8 years. Through this work he has built an extensive knowledge of the industry and is familiar with research across a number of the UK and Europe's key public sector animal health research institutions. Rupert has an MA from Cambridge University and a PhD in plant molecular biology from Warwick University.

Recent Experience:

This section highlights some of the recent Animal Health projects and partnerships that IP Pragmatics has been directly involved with:

- Negotiating and finalising a multi-million Euro vaccine development and licence agreement to develop new blue tongue vaccines. This also involved the separate negotiation of a major licence agreement with our client and a South African partner.
- Licensing a new vaccine adjuvant technology to a major US animal health company.
- Option agreement and subsequent licensing of novel respiratory pig vaccine with a major US animal health company.
- £3m secured for a UK university client for a novel vaccine development.
- Licensing and collaboration between a Chinese company and a UK government client to market and sell their animal reagents across China.
- Development by a UK government client of a new animal diagnostic funded by a Chinese company.
- Project management of a £2 million Wellcome Trust funded project to develop novel foot and mouth disease vaccines.



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Technology	Sample Clients
Veterinary diagnostics	Aberystwyth University CSIRO (Australia) National Institute of Animal Health (Japan) Paragon Veterinary Group Plastid AS (Norway) Pirbright Institute (formally the Institute for Animal Health) Scottish Partnership for Animal Science Excellence (SPASE) Stratophase Limited Tyrian Diagnostics (Australia) Animal and Plant Health Agency Agri-Food and Biosciences Institute (Northern Ireland) Wageningen University and Research (Holland) InterAct Partnership AgResearch (New Zealand) UK Trade and Investment
Animal vaccines	Pirbright Institute Animal and Plant Health Agency Wageningen University and Research (Holland)
Animal health	Paragon Veterinary Group RAFT Solutions Atomo Diagnostics Pty (Australia) Animal and Plant Health Agency Pirbright Institute
Aquaculture	Portsmouth University Centre for Environment Fisheries and Aquaculture Science (Cefas) Biologix Pty Ltd (Australia)

Case Studies

Animal and Plant Health Agency

The Animal and Plant Health (APHA) is an executive agency of the Department for Environment, Food and Rural Affairs, working across Great Britain on behalf of Defra, Scottish Government and Welsh Government. The agency's role is to help safeguard animal health and welfare and public health, protect the economy and enhance food security through research, surveillance and inspection.

IP Pragmatics has worked closely with the APHA on a range of different business, sales, and marketing support programmes since 2006. This has led to the formation of a new business unit, the formation of successful services and a significant increase in IP exploitation deals; cumulating in the launch of VLA Scientific (now APHA Scientific), a new brand under which these activities are being promoted. In particular, IPP has worked with APHA to provide:

- Marketing and sales strategies including the formation of contract research services and the expansion of the APHA proficiency testing services; and
- Ongoing business development planning and sales/marketing support and advice focused on exploiting APHA's research base and services, particularly in the veterinary vaccines and diagnostic sectors.

Agri-Food and Biosciences Institute

Agri-Food and Biosciences Institute (AFBI) is Northern Ireland's largest research institute and works across the full spectrum of the agri-food sector. AFBI's Veterinary Sciences Division (VSD) is a globally recognised centre of excellence for work on animal disease and food safety. VSD delivers world class veterinary science to the animal, food and fish based sectors of the agri-food industry. IPP delivered two one-year contracts (initially one year, which was extended for a second year) to support in the assessment of the market opportunities associated with new services, technologies and inventions arising from the research base within AFBI. Opportunities involved the exploitation of different forms of intellectual property through different routes to market (e.g. licensing, spinout, commercial services etc). Technologies included vaccines, diagnostics and other services to veterinary practices.

Wageningen University and Research (Holland)

Wageningen Business Generator (WBG) was established as the technology transfer company for Wageningen University and Research (WUR). WUR uniquely combines the activities of Wageningen University and the former Dutch government contract research organisations covering a wide range of science disciplines. Part of WUR is the Central Veterinary Institute in Lelystad, an internationally renowned



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knowledge organisation in the field of infectious animal diseases. Following a search across Europe to find a partner to support their activities, WBG appointed IP Pragmatics to provide IP market assessment and business development support. This involved providing detailed market assessments and business analysis of WUR's current research IP clusters and/or patented technology opportunities, including identification and mapping of competing patented technologies to understand the competitive landscape.

InterAct Partnership

IP Pragmatics ran the InterAct Project (www.interactpartnership.co.uk) from 2004 to 2011. The project is a unique partnership between six leading UK government research organisations covering amongst other areas the commercialisation of environment, animal health, human health, aquaculture and agriculture related research. IP Pragmatics' role has been to assist the partners with a bottom-up, technology led and a top-down, market led analysis of new commercialisation opportunities that could be created through combining the partners' IP, know-how and R&D services. Over the project's past 6 years IPP has helped the InterAct partners identify more than 220 potential opportunities. These opportunities ranged from new spin-out company concepts, new product licenses and new enhanced commercial service or R&D offerings. These opportunities were initially assessed using published, proprietary and direct market/industry contacts to identify if a market existed for the product or service. Using this analysis around half of the opportunities were progressed to more detailed market entry strategy analysis including identification of partners and competitors.

IP Pragmatics has also been actively involved in the subsequent exploitation of these opportunities through: business planning and fund raising for new ventures; marketing and negotiation of new licenses; business planning and marketing of new commercial service offerings across a range of industries including the animal health sector. To date 46 exploitation vehicles have resulted from this work; 8 of which are with companies in the animal health sector.

AgResearch (New Zealand)

AgResearch is one of New Zealand's leading research organisations. Its purpose is to enhance the value, productivity and profitability of New Zealand's pastoral, agri-food and agri-technology sector value-chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand.

IP Pragmatics has previously undertaken a number of assessments of AgResearch's animal health research capabilities and intellectual portfolio to enable its re-alignment with the commercial sector. This has involved detailed auditing of specific research groups, discussions with animal health companies and recommendations on AgResearch's strategy for generating greater commercial revenue from the animal health companies.



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UK Trade and Investment

IP Pragmatics, through Dr Claude Kaplan, has been leading UK Trade & Investment's (UKTI) R&D Programme in the animal health sectors. From 2011 – 2014 Claude worked with all the major animal health, animal diagnostics, feed and genetics companies to identify their R&D needs and locate potential opportunities in UK science base. This work has led to a number of new investment opportunities into UK from Pfizer, MSD Animal Health, Elanco, Qiagen, Inverness Medical and other players. This project has allowed IPP to grow its network and understand the Animal Health industry's needs and interest with respect to related commercialisation opportunities.