

ANIMAL HEALTH



FROM BEES TO COWS

Client
The Pirbright Institute

Client Sector
Research Institute

Service
Knowledge Transfer & Project Management Support

Expertise
Animal Health



This year, The Pirbright Institute, a leading UK government animal health research organisation, embarked

on a multi-party research and commercialisation collaboration spanning 3 years. The development of this vaccine technology holds promise to be a step change for Foot and Mouth Disease, with an entirely novel class of compound.

The animal health business of a global pharmaceutical company is involved as the strategic industrial partner. Other parties include the Wellcome Trust and the Universities of Oxford; Dundee and Reading.

The project is structured around a complex collaboration and exploitation agreement. IP Pragmatics worked with the client advising on all aspects of the commercial collaboration. Our

team is involved with the on-going project management, research steering and commercialisation schedule, helping to drive the collaboration with Pirbright, the other UK parties and the global industry partner. IPP's strong background in animal health technologies and the commercial landscape have aided this collaboration.

It is hoped that the project, due to reach its final milestone in 2017, will result in a novel, synthetic FMDV vaccine for livestock in both developed and developing countries. The technology development also promises to enhance our understanding of the application to human picornaviruses, such as Polio, for which there is already interest from other funders.

Client
Warwick Ventures

Client Sector
University

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Market Assessment & Business Development Support

Expertise
Animal & Human Health



Bees RNAi
The therapeutic applications for RNAi are being explored by research groups worldwide. We have recently worked on a number of projects exploring such RNAi-based technologies. A market assessment report carried out with a group from The University of Warwick focused on the possible use of an RNAi antiviral for the treatment of Deformed Wing Virus (DWW) in bees.

Much publicity is given to declining global populations of honeybees, and the subsequent consequences for pollination. Whilst pesticide neonicotinoids have been given serious attention in Europe, viral transmission by Varroa mites is a large and growing

problem. Bee hives become infected with Varroa frequently carrying a cocktail of lethal viruses, often resulting in death of pupae and deformed adults.

As part of a BBSRC pathfinder application, we consulted market reports, data, patent landscape information, and our industry contacts to quantify the market opportunity for the technology. The major insecticide companies such as Syngenta, Monsanto and Bayer are currently proactively engaged in finding ways to understand and improve bee health. The project has led the university to successfully raise proof of concept development funding from the BBSRC follow on fund.

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Over the past year, IPP has supported the University of Warwick with several projects involving a combined market assessment and patent landscape analysis.

RSV antiviral
Respiratory Syncytial Virus is a major contributor to lower respiratory tract infection. In humans this affects infants, the elderly and immunodeficient patients, often severely. The equivalent virus is also a major contributor to economic loss in cattle (BRSV), amounting to losses of \$1billion (US) and £54 million (UK). There is currently one human treatment available (MedImmune's Palivizumab) and for cattle, the multivalent respiratory vaccines.

A virology research team at the University of Warwick has identified a novel compound with RSV antiviral activity, targeting viral replication. The patent was pending publication when we began a combined market and patent landscape assessment. The research

identified opportunities for both an antiviral and prophylactic treatment, with industry interest realised in both the pharmaceutical and animal health markets. The research has received BBSRC development funding and IPP has been involved with on-going discussion with industry.

Developments in human medicine have historically played a vital role in the sourcing of new animal health products. Many of the main players in the animal health market remain associated with a human pharmaceutical parent company and this association is a vital source of new leads.

