IP PRAGMATICS

Sector Track Record:
Agriculture & Food

The agriculture and food sector covers innovations in crop protection (conventional agrochemicals and biopesticides), sustainable crop production including plant breeding, through to functional and novel foods. The sector is dominated by very large multinational companies, with a smaller number of innovative SMEs particularly in emerging markets such as biopesticides. The sector overlaps in part with aspects of the veterinary sector, particularly in respect of animal feed and sustainable animal production.

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. He has particular expertise in the Agricultural Biotechnology sector having gained 12 years industry experience with Zeneca Agrochemicals (now Syngenta) and Plant Bioscience Limited (PBL) prior to founding IP Pragmatics. 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 agriculture and food related projects and partnerships that IP Pragmatics has been directly involved with:

- Assisting a major multinational to dispose of a legacy portfolio of plant biotechnology related patents
- Advising UK and Dutch universities on fair and reasonable early stage plant biotechnology licensing terms in negotiations with multinational agbiotechnology companies
- Assisting an Australian natural products company to secure new funding for clinical trials and an option agreement with a major European potential supply chain partner
- Assisting a UK research organisation to negotiate a major plant screening collaboration with a leading FMCG multinational
- Working with major US multinational to identify new agbiotechnology technologies and research opportunities. Facilitating meetings between the US company and over 50 academics across 15 research institutes and universities
- Assisting a Chinese food safety company identify and set-up research collaborations and licenses with European centres of food safety expertise
- Assisting a UK agricultural research institute with a strategic review of its external income generation capabilities and approaches
- Assisting a Chinese diagnostic company identify and set-up a research collaborations with a UK centre of expertise in plant diagnostics
- Assisting an Australian functional food company with business development and partnering support

Technology	Sample Clients
Plant sciences	Rothamsted Research Wageningen University and Research (Holland) Royal Botanic Gardens, Kew CSIRO (Australia) Danisco AS GreenSogna Limited (Japan) James Hutton Institute
Plant biotechnology	Plastid AS (Norway) Warwick HRI University of Swansea University of Leicester Australian Bioactives Consortium Teagasc (Ireland) Australian National University
Agriculture	Rothamsted Research Food & Environment Research Agency (Fera) and the Interact Partnership Tokyo University of Agriculture and Technology Forest Research Aberystwyth University Agri-Bio Industry Limited (Japan) James Hutton Institute Oxitec Limited University of Warwick
Food biotechnology	Agri-Food and Biosciences Institute (Northern Ireland) Institute of Food Research Marinova Pty (Australia) The Good Gut Group (Australia) CSIRO Food for Health Ireland

Case Studies

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 Agriculture, Food & Environmental Sciences Division (AFESD) and its Applied Plant Science and Biometrics Division (APSBD) are centres of excellence for work across a whole spectrum of applications including plant breeding, plant diagnostics and food processing and safety. 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 food processing methods and services, food and animal supply chain monitoring software and novel plant varieties (for field crops and the forestry/amenity sectors).

Rothamsted Research

Rothamsted Research is the longest running agricultural research station in the world, providing cutting-edge science and innovation for nearly 170 years. Their mission is to deliver the knowledge and new practices to increase crop productivity and quality and to develop environmentally sustainable solutions for food and energy production.

IP Pragmatics has provided market assessments and commercialisation support to a number of Rothamsted technology projects including:

- The development of novel oilseed crops expressing omega-3 oils
- A soil additive for managing fertilizer usage and nitrate leaching
- Novel low viscosity wheat varieties for the animal feed and whiskey distilling industries
- A valuation of the Rothamsted national willow collection for biofuel applications

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 the University and the former Dutch government contract research organisations covering a wide range of science disciplines. Part of WUR is Plant Research International, one of the largest internationally renowned knowledge organisations for plant science research. 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.

Food & Environment Research Agency (Fera) and The Interact Partnership

IP Pragmatics ran the InterAct Project from 2004 to 2011. The project is a unique partnership between six leading UK government research organisations, including the Food and Environment Research Agency (Fera), 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 170 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 24 exploitation vehicles have resulted from this work; 6 of which are with companies in the agriculture and food sectors.

Plastid AS

Plastid AS is a SME biotechnology company based in Norway that is developing a proprietary patented method of selection and regeneration which allows production in chloroplasts of high value recombinant proteins from genetically engineered plants.

The company is a spinout from the University of Stavanger, based on technology developed by Professor Simon Møller as a result of 15 years of research in plastid biology and plastid engineering. Research to date has proved not only that the methodology can produce both standard proteins and new proteins that have proved difficult / impossible to produce using any other methods, but that the techniques are robust and reliable and applicable for commercial production.

IP Pragmatics has supported the company with plant landscape and freedom to operate advice, as well as with ongoing business development support to help introduce the company's technology to potential partners in different sectors.