



InterAct



Case Study: Prokyma Technologies Limited

InterAct was established in 2005 as a unique partnership between four leading UK government research agencies: Central Science Laboratory (CSL); Defence Science and Technology Laboratory (Dstl); Health Protection Agency (HPA) and Veterinary Laboratories Agency (VLA). Funded by the Department for Innovation Universities and Skills (DIUS) under the PSRE Exploitation Fund Second Round the partnership was established to capture the synergies derived through combining the intellectual property, know-how and R&D services of these world class institutes.

In 2008 the partnership secured a further three years of funding and expanded to include two additional partners: Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the Health and Safety Laboratory (HSL).

All of the partners have considerable expertise in the detection of biological agents and have a range of intellectual property covering detection platforms, proprietary reagents and tests and test validation capabilities. An example of such technologies is an elegant way of manipulating or concentrating micro-particulate/microbiological/pharmaceutical analytes developed by Dstl scientists with University collaborators. The patented technology (WO 2004/024287 and WO 2004/033087) uses sound waves to create specific regions in a fluid into which micro-particulates (e.g. bacterial cells and spores) are forced. The ability to control the movement of minute particulates in a rapid and robust manner allows:

- Analytes to be concentrated by many orders of magnitude
- Material to be held in a flowing liquid to be later released as a pulse
- More target analytes to interact with a surface, such as a detector.
- Filtration of a liquid to remove unwanted micro-particulates.

The technology has the potential to reach disparate sectors/markets with common challenges. In September 2006 Ploughshare Innovations (Dstl's technology transfer company) created a dedicated company, ProKyma™ Technologies Ltd, to develop the platform.

Recognising that the work had wider applications across clinical, veterinary and environmental diagnostic methods, InterAct commissioned a consultancy review to investigate the benefit to other laboratories working at the cutting edge of microbial detection, primarily using expertise from VLA and CSL.

The InterAct funded work resulted in a robust business plan being developed, with both CSL and VLA becoming shareholders in Prokyma as recognition of their contributions. In November 2006 ProKyma raised seed investment from the Rainbow Seed Fund, which allowed a feasibility study to be conducted in the department of Professor Terence Coakley at Cardiff University, widely regarded as the pioneer of the use of ultrasound for cell manipulation.

In December 2007 ProKyma completed its series A funding of £470,000 from a syndicate of Rainbow Seed Fund, NESTA and the Liverpool Seed Fund. This crucial investment has now allowed ProKyma to support wider product development and to move to larger facilities in Liverpool.

See www.prokyma.com for further details on the company.