Case Study: Cytocell Limited

A Knowledge Transfer Partnership (KTP) project to develop a set of fluorescent non-human probes for in-situ hybridisation (FISH) experiments has recently been completed with exciting outcomes.

The 30 month project was established between Cytocell Ltd, a leading provider of innovative DNA screening solutions for detection of human genetic diseases in cytogenetics and cancer, and Professor Darren Griffin, Professor of Genetics, from the University’s School of Biosciences. Cytocell is part of Oxford Gene Technology whose mission is to provide world-class genetics research solutions.

The Company was keen to tap into expertise at the University to explore the use of screening tools in non-human animals. Previously Cytocell had focussed exclusively in products for humans for use in the clinical diagnostic market so a foray into the non-human world was a new venture for the company. Three products have arisen from the project, a device for looking for chromosome abnormalities in mice and mouse cell lines, a device for identifying evolutionary rearrangements in birds and a device to screen for infertility in pigs. A similar device for cattle is also in the development stage. Each of these devices incorporate a set of FISH probes in a variety of different colours which could also be made as individual products.

Professor Griffin and his team provided valuable expertise in bioinformatics, genome sequence searching and preparation of non-human samples. The new knowledge acquired has enabled Cytocell to target previously unfamiliar markets including the farm animal reproduction industry. The partnership is looking forward to future collaborations and has recently submitted a large BBSRC grant.

Dr Martin Lawrie, Managing Director of Cytocell said:

“We look forward to seeing the impacts of the KTP in the non-human market. The potential for the cattle and pig devices is particularly exciting, not only for the sales that it will bring but also for the opportunity to contribute to the improvement of food production worldwide.

The relationship with the University of Kent is now a mature and productive one. We have recently supported a BBSRC grant application that will develop it further and will, I am sure, ultimately lead to further products.”

For further information on how your business can benefit from our support and services, contact Kent Innovation & Enterprise, University of Kent at 01227 827376 or enterprise@kent.ac.uk.

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