

# Knowledge Transfer Partnerships



## Post-doc Associate Profile



“KTP allows you to turn research into practical, tangible outputs.”

**Name:** Dr John Vaughan  
**Qualification:** BSc Ecology, MSc Instrumental and Analytical Sciences, PhD Physics  
**Partnership details:** Unilever Plc and University of Manchester

My KTP with the University of Manchester and Unilever aimed to develop a wearable polymer fibre sensor to monitor sweating for antiperspirant evaluation based on moisture sensitive cladding. As a post-doc KTP, this project was essentially an extension of my PhD research, which looked at thin film optical sensors, using dyes.

During this KTP I was responsible for developing a new sensor technology which would enable the in-vivo measurement of sweating events. Miniaturised electronics were designed to be worn by volunteers over a period of one day, while logging sweating events. Controlled hot room tests validated the sensor devices and provided the project with useful information on the measurement of sweating.

From a personal point of view, this KTP provided important insight into the constraints and practicalities of commercial research, which, coming from an academic background, proved beneficial to my own development. I became much more focused on the financial value of the project and the deadlines which needed to be met. Further to this, the highlight of the project was the ownership I was given.

It was extremely interesting to implement elements of my PhD research and the work I delivered has really taken off, which is an achievement.

I found the personal development opportunities KTP provides to be of great value. I am often working independently in the lab, so I found modules such as the Developing your management style and Marketing and Effective Communication particularly useful.

In terms of commercial benefits, this KTP has introduced a significant new capability to the deodorants category – the ability to monitor an individual’s sweating pattern during a day. Coupled with environmental monitoring, this will give new insight into exactly when people sweat over a period of time (and consequently when they will require maximum product efficacy, and Unilever has a tool for deodorant product design and formulation).

I would have no hesitations in recommending KTP to individuals undertaking PhDs. KTP allows you to turn research into practical, tangible outputs, which is rewarding.

KTP is Europe’s leading programme helping businesses to improve their competitiveness by enabling companies to work with higher education or research and technology organisations to obtain knowledge, technology or skills which they consider to be of strategic competitive importance. The programme is UK-wide, headed by the Technology Strategy Board, and supported by 12 other public sector funding organisations.

The Technology Strategy Board is the leading funding agency for UK innovation and, within it, has been overseeing Knowledge Transfer Partnerships (KTPs) since 2007 when the programme was established.

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