The TMRF was used to link the strongest basic and clinical research across the University of Dundee (2011-2014). Funding was awarded on a competitive basis and 25 different projects have been supported including; Pump-priming (up to 20k) and Strategic projects (up to 100k), and translational medicine (non-clinical) PhD projects.

**TMRF: Case Study (Strategic Award, 100k)**

**Project Title** - 2nd AssayDev: A University-wide initiative to improve the quality of second stage assays.

**Recipients** - Dr David Gray, Dr Andrew Woodland and Prof Paul Wyatt (DDU)

An important component of translational research at the University of Dundee is the Drug Discovery Unit (DDU), which provides professional early-stage drug discovery capability that is fully integrated with our academic research. As part of these early stage processes, secondary assays are essential in confirming “hits” identified in the initial screen. In many cases these secondary screens are designed to test the hit compounds in a functional cellular assay to determine efficacy. Prior to the award of this TMRF strategic grant, secondary assays in use within the University of Dundee predominantly relied on western blot or similar low throughput qualitative, or semi-quantitative, technologies.

This award allowed personnel embedded within the DDU to develop secondary assays based on ALPHA or ELISA technology which offers a number of advantages including; increased robustness and the ability to be fully automated, rather than a manual process. Initial projects benefiting from this work included evaluating compounds that act on protein kinases involved in the control of inflammation. The projects assessed multiple cytokine readouts from both primary human and mouse inflammatory cells. One of these targets (salt inducible kinase 2, SIK2) is subject to an invited second stage MRC DPFS application and the outcome of this submission should be known September 2015. During the 2 year project, an additional 10 different targets were assessed, benefiting from quantitative automated platforms, with projects investigating TNFα, IL10 and IL23 amongst others. Several projects are still ongoing. Others informed by these robust secondary assays were closed, allowing resource to be redirected towards more promising projects.