

Division of Signal Transduction Therapy (DSTT)

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Research Areas



Tool Development



Basic Research

At a Glance

- Status: **Active Consortium**
- Year Launched: **1998**
- Initiating Organization: **University of Dundee**
- Initiator Type: **Academia**
- Location: **Europe**

Abstract

The Division of Signal Transduction Therapy (DSTT) was established in 1998. It operates as a collaboration between scientists in the Medical Research Council (MRC) Protein Phosphorylation and Ubiquitylation Unit (PPU), signaling researchers at the University of Dundee's College of Life Sciences, and six of the world's leading pharmaceutical companies. The DSTT model enables industrial researchers working in any of the worldwide outlets of six pharmaceutical companies to effectively work with the approximately 200 Dundee-based researchers that participate in the collaboration to understand the fundamentals of the molecular causes of disease that result from disruptions in protein phosphorylation and ubiquitylation networks.

Mission

DSTT's purpose is to conduct cell signaling research and to encourage development of new drug treatments for global diseases such as cancer, rheumatoid arthritis, and Parkinson's disease. Specifically it aims to target protein kinases and the ubiquitylation system in the development of these therapies. It is one of the largest ever collaborations between the commercial pharmaceutical industry and any academic research institute.

The collaboration agreement has been renewed for the period 2012-2016 and currently focuses on mammalian protein kinases and the ubiquitylation system. Its main aim is to help accelerate the development of future drugs that target specific phosphorylation and ubiquitylation systems for the improved treatment of disease. A key remit of the research is to define and validate new drug targets with the aim of obtaining sufficiently convincing results to persuade pharmaceutical companies to develop drugs against these targets. The MRC-PPU also helps generate reagents that will help the DSTT companies set up screens to identify and characterize inhibitors. Participating companies have access to the unpublished results, technology, expertise, and reagents, as well as first rights to license the intellectual property (IP).

Consortium History

DSTT was founded in 1998 by Philip Cohen and Peter Downes, expanded in 2003, and renewed for a second time in 2008. With the latest third renewal in July 2012 under the current director Dario Alessi, DSTT will have attracted £50 million in funding since it started.

Financing

With current funding of £14.4 million (approximately \$22 million) and additional fees for purchased services, DSTT is one of the largest research collaborations between the pharmaceutical industry and a United Kingdom (UK) research institution. The DSTT grant funds 36 staff, with 40 percent of the grant supporting 3 scientific officers and 19 technical staff employed in the DSTT's production unit.

Impact/Accomplishment

DSTT is widely regarded as a model for how academia should interact with industry, for which it was awarded the Queen's Anniversary Prize for Higher Education in 2006. DSTT has also been reviewed by others ("Nature Reviews Drug Discovery" 10, 561-562, August 2011) and also highlighted in the Research Councils UK study on the economic impact of Research Councils (Part II: Case studies, pp. 210-222, September 2007).

Links/Social Media Feed

<http://healthsciencescotland.com/organisation.php?id=9>

<http://www.ppu.mrc.ac.uk/overview/DSTT.php>

Points of Contact

Inquiries regarding kinase profiling should be directed to:

kinase-screen@dundee.ac.uk

General inquiries regarding any other service provided by DSTT should be directed to:

dstt@dundee.ac.uk

Sponsors & Partners

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University of Dundee, College of Life Sciences

University of Dundee, MRC (Protein

Phosphorylation and Ubiquitylation Unit

Updated: **04/11/2016**