

Discovery Fast Track Challenge - Engagement in Italy

A new Pharma - Academia Partnership Model to support Innovative Drug Discovery

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Introduction

Recent years have seen a paradigm shift in pharmaceutical research and development (R&D). The tendency to entirely or predominantly use internal know-how and resources when managing R&D activities is being questioned and more open and externally driven ways of thinking are being considered. New models including external contributions to drive efficient innovation are emerging. Among the different partnership types, an emerging one is 'Call for Proposals', a type of collaboration in which a biopharmaceutical company solicits ideas from scientists from outside laboratories and selects the best ones for further development. *Discovery Fast Track Challenge (DFTC)* is a model of partnership between Pharma and Academia, based on competitive process and developed by GSK. First edition in Italy was held in 2014, second edition in 2015. Here we report 2014 Discovery Fast Track Challenge in Italy results.

Methods

DFTC 2014 edition was open for proposal submission from February 24 and lasted until April 23. Researchers were at first invited to submit to GSK their one-page non-confidential proposals, that highlighted the therapeutic hypothesis for the biological target, the screening approach to be undertaken and the progress made towards development of a screening assay. The aim was to discover new pharmacologically active molecules in partnership with GSK scientists. A selected number of these new biological targets are now being tested against GSK's extensive library of compounds and if some compounds are identified during this process that show activity against these pathways or targets, the winning investigators may be offered a long term full DPAC (*Discovery Partnerships with Academia*) partnership with GSK. A full DPAC project is a joint collaboration between the academic and GSK where the molecules will be optimized, undergo preclinical and clinical evaluation and if successful, the collaboration will continue all the way to the launch of a new medicine.

Full methodology about the DFTC is available at gsk.com/discoveryfasttrack.

Results

Fifteen winning proposals were selected from 428 entries across North America and Europe in 2014. These proposals covered a wide range of approaches and disease areas, from searching for new antibiotics or antivirals, to discovering new treatments for cardiovascular and kidney diseases.

In Italy 42 investigators – affiliated to 19 Italian Academic Research Centers - entered their proposals into DFTC 2014, concerning with 16 disease areas: Cancer Therapy (15 proposals), Neuro-degeneration (7), Cardiovascular (5), Targeting Bacterial Infections (3), Metabolic Diseases (2) Clinical Hypothermia, Dermatology, Diseases of the Developing World, Endocrinology, Gastroenterology, Immunology, Inflammation, Muscular Degeneration, Ophthalmology, Rare Diseases (1 proposal each).

An Italian proposal was selected as one of the 9 winning projects from Europe out of a total of 15 winners worldwide. The proposal is related to the targeting bacterial infections.

The Italian researcher will collaborate with scientists at GSK from Discovery Partnerships with Academia (DPAC) and Molecular Discovery Research (MDR) to identify molecules with antibacterial activity. Compounds identified as active at this stage could be the first key step on a path to the development of new antibiotics useful in treating bacterial infections.

Discussion

DFTC may prove to be a valid methodology to support effective access to external innovation and to offer Academia with the possibility to turn its innovative ideas into product.

Italy was the second European Country in terms of numbers of proposal submitted and one of the 9 finalist countries. This result means that Italian discovery community is highly sensitive to these new ways of collaborative methodologies.

Specific training for researchers and focused meetings with Italian Universities may further improve for next DFTC editions the contribution provided by Italy