



# Discovery Fast Track Challenge

Your chance to win a partnership with GSK—helping to develop new medicines from your innovative ideas.



## Your idea. Our resources.

Do you have a novel drug discovery concept? Are you affiliated with a European or North American college or university? Are you excited about partnering with a leading pharmaceutical company to translate your novel science into a new medicine?

## If so, the Discovery Fast Track Challenge is for you.

## A winning concept.

Tell us about your concept. Our expert panel of judges will evaluate each submission, selecting up to ten winners from Europe and ten winners from North America.

If your concept is chosen, and if you choose us, GSK will collaborate with you to test the full diversity of our compound collection using our state-of-the-art screening platforms to discover active compounds. Based on the results, we will share the best chemical probes with you and, together, we'll discover compounds for use in advanced biological assays. In short, you and your concept will be on an accelerated path to success.

## What are we looking for?

<b>Clear therapeutic hypothesis</b>	A coherent and supportable hypothesis that modulation of target will produce a physiological effect which will be of therapeutic benefit to particular patients
<b>Target defined</b>	Specific drug target identified, and some understanding of type of pharmacology desired
<b>(Exclusive) enabling expertise</b>	Academic partner has know-how and/or expertise essential to progressing the target which is not (readily) found elsewhere
<b>Tractability</b>	A path to identification of a drug molecule can be defined. Target knowledge suggests that a drug-like molecule can be generated
<b>Requirement for GSK contribution</b>	GSK has capabilities and expertise which will help progress the project to the next milestone

For details on how you can take advantage of this opportunity, visit [www.gsk.com/discoveryfasttrack](http://www.gsk.com/discoveryfasttrack)



# Enter the Discovery Fast Track Challenge for a chance to collaborate with GSK.

Submit your novel drug discovery concept and you could find yourself on the fast track. Up to ten winners from Europe and ten winners from North America will gain access to the experience and resources of GSK.

GSK partnerships provide world-class knowledge in lead discovery and access to our unique compound collections of highly diverse chemistry. Using our expertise in drug discovery, we will provide high-quality probes to address your biological questions.

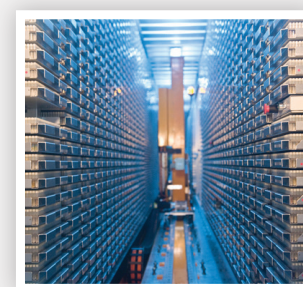
## Reagents and Assays

Reagents and assays are customized to identify quality chemical probes. A wide range of biochemical, biophysical, cellular and phenotypic assays can be exploited and scaled to meet lead discovery needs.



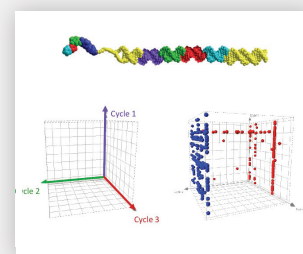
## HTS

High Throughput Screening (HTS) enables the testing of millions of pure compounds using a diverse set of technologies in biochemical and cellular assays of different complexity. The GSK HTS chemical library consists of around 2 million compounds selected to enhance the success in finding high-quality molecules for lead optimization programs. The infrastructure in miniaturization, robotics and data analysis—together with years' of experience—make HTS a fast and high-quality process. Results are analyzed with sophisticated chemical probe selection algorithms that include robust statistics, chemical clustering, data mining and physiochemical properties.



## Encoded Library Technology (ELT)

ELT is an affinity-based selection methodology for hit identification. This technology is based on the synthesis and screening of a highly diverse collection of DNA-encoded small molecules. In a simple affinity selection experiment, libraries containing billions of compounds are exposed to the target. Bound molecules are then recovered and de-convoluted using next-generation sequencing. This technology has minimal target requirements and has been successfully applied to a range of enzyme, protein-protein and receptor targets, including protein isolated from patients.



## Hit Qualification Support

Selecting the optimal tool compound(s) from the hundreds or thousands of raw screening hits typically requires the use of a range of assays (e.g., biochemical, biophysical, cell-based), along with computational chemistry approaches to identify emergent structure-activity relationships. To accomplish this, GSK operates a fully integrated environment, and takes a holistic computation and experimental approach. We provide both the relevant measurements and the interpretational guidance, ensuring the selected compounds possess the best chemical properties and interact with the target via a desired modality.

