openinnovation

AstraZeneca

Target Innovation Research Proposal
Instructions for authors

Target Innovation Research Proposals should focus on novel discovery and validation research to deliver small molecule tools for validation and progression through lead discovery campaigns.

The proposal should explain:

- validation that already exists for the target and how to strengthen this
- the proposed approach for enabling increased confidence in the innovative target, for example via the identification of small molecule leads
- the assays to be used and chemistry expertise to be applied in order to advance hit molecules to a more advanced stage

We seek applications from drug discovery institutions interested in screening compounds provided by AstraZeneca. Only projects within our R&D focus areas are eligible.

Criteria for institutions or investigators applying for access to compound libraries:

1. Capability to perform the proposed experiments, e.g. target validation, high throughput screening (HTS), hit-to-lead optimisation and medicinal chemistry as described within the application
2. Willingness to sign an option agreement that provides AstraZeneca the right of first negotiation to exclusively license the lead series derived from any screening projects.
3. In cases where AstraZeneca compound structures have been disclosed to the investigator, the screening institution will prepare a Lead Identification Data Package approximately 6 months before the completion of the Lead Identification phase (when compounds are suitable for animal model testing).

Please complete the template below, enlarging each section as needed. Include a few published references to support your proposal.

Target Innovation Proposal Title : *Descriptive Title*

Hypothesis: *Statement of the hypothesis for the biological target or mechanism in the specified human disease indication. Include non-confidential evidence as to why you believe this biological pathway is important in the disease area under investigation.*

Outline of Research Plan

- *Specific aims including scientific rationale. The therapeutic area. Brief description of the target/pathway (including alternate names and GeneID) and therapeutic indication (from drop-down menu). Hypothesis linking the target to the disease (pharmacological and/or genetic). Potential clinical utility proposed. Competitive landscape*

- *Context & background. –Include supportive target validation & disease linkage evidence; especially human), and negative findings that may refute the hypothesis (include links to up to 3 papers). What subset of disease will benefit (drop-down menu, also 'other')?*

- *Why would a therapy against this target be notably superior to what is now or soon will be available to patients?*

- *Workplan proposal*
  - *Description of request from AstraZeneca (HTS, subset, fragment set, phenotypic screening set, other)*

For Screening Proposals:

- *Currently available tool compounds for the target*
- *Funding support for screen and hit follow-up*
- *Overview of the experimental plans, including rationale for choice of assays and endpoints for target validation and compound screening; description of how hits would be triaged; use of selectivity assays and assays demonstrating mechanism of action and target linkage to disease phenotype; and plans for chemistry optimisation of series*
- *What compound library you wish to screen (diversity, phenotypic or fragment) and why.*
- *High Throughput Screening Readiness*
  - *HTS assay description*
  - *Characterisation*
  - *Pilot screening data, if available*
- *Plans for Hit confirmation/validation once hits are obtained*
- *Drug discovery screening flow chart*
- *Facilities description:*
  - *Ability to conduct HTS*
  - *Ability to conduct Structure Activity Relationship (SAR) studies on the hit*
- *For in vitro cell assays, provide details on any cell lines that will be used.*
- *Please include a clear strategy that demonstrates how you will progress from target idea to validated target with lead molecules.*

- *Proposed next steps to advance your project beyond initial experiments. Include approximate timelines for completing the workplan. Demonstrate as required your current or anticipated source of funding.*

Operational feasibility

- What do you consider to be innovative about your proposal *(target linkage to disease, mechanism of modulation of target, novel assays, chemistry etc.)?*

- What has been established already? By you or members of your team? What hasn't?
  [Note: Innovative, novel approaches are welcome but will require supporting evidence]

Capabilities of the investigator(s), their labs, institutions, collaborators

- Biosketch of investigators

- Other external support

Technology Transfer Office contact details

- Full name:
- Address:
- Email:

Notes

Confidential information: Please include only **non-confidential** in the concept proposal. If confidential data exists that would strengthen the proposal, the author may indicate that confidential information is available to share under a Confidential Disclosure Agreement (CDA). If AstraZeneca finds the non-confidential Concept Proposal sufficiently interesting, we will discuss about executing a CDA.

Technology Transfer Office contact: We request that you include in your application the name and contact details for your Technology Transfer Office. Preferably this should be an individual with whom you have already discussed your submission. Upon acceptance of your proposal, the contract can then be sent directly to this individual as well as to the submitter.

Additional details: During the submission process, additional details regarding the use of human tissue and/or animals may be requested.