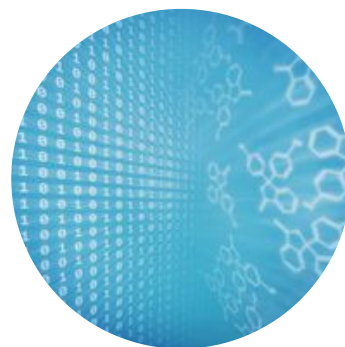


Computational Model to Guide Molecular Glue Drug Discovery

AstraZeneca, a global biopharmaceutical and biotechnology company, is looking to **develop a computational model based on molecular glue (MG) ternary binding and kinetics**, to guide decision making on project initiation, and key optimization strategies.

MG, as an innovative modality, holds significant potential in drug discovery. MGs can be characterized by distinct binding and kinetic pathways that result in ternary complex formation. Currently, the prospective and rationale discovery of MG is still in its infancy, and there is a lack of comprehensive theoretical models to answer the key questions: **What do the best MG opportunities look like? When is the risk too high to initiate a MG project?**



AstraZeneca is seeking proposals to achieve the goal above, by considering following points:

- Two major kinetic paths for ternary complex formation. For each path consider following factors to predict key outcomes including 1) level of POI (protein of interest) degradation achievable, to guide MG project go/no-go; and 2) understanding dominant factor(s) driving the level of POI degradation, to guide optimization strategy
- Effector protein (EP), POI expression ratio and EP-POI binding kinetics and affinity
- EP, POI turnover rate
- MG binary binding kinetics, affinity, and ternary binding kinetics, affinity
- Apply literature examples to validate the model (e.g. GluN2B-ifenprodil-GluN1, FKBP12-rapamycin-FRAP, CRBN-IMiD-IKZF systems)

Programme Information and Opportunity for Collaboration

AstraZeneca's CoSolve challenge is an annual, global Open Innovation programme seeking collaborators with innovative solutions to real research challenges. These challenges lie within the company's R&D research focus areas and require solutions that are immediately translatable. Collaborators are sought who can bring innovative ideas that can be rapidly translated into tangible solutions. Working together, these ideas could help shape the development and delivery of new therapies and bring them to patients sooner.

Applicants should complete the **proposal form** which should contain a brief, non-confidential overview of your proposal, including a workplan, approximate budgetary requirements, desired outcomes, and background on your research group. To submit your proposal, please visit our website **the Inpart website**, register, and submit your application form under the appropriate campaign.

Applications that are of interest will be selected to participate in the virtual **Challenge Week** - an intensive week where applicants will pitch their ideas and work with AstraZeneca scientists to transform their idea into a workplan. For selected winners from the challenge week, a **collaboration agreement** will be put in place with specified milestones and the winning projects can begin quickly.

Opportunities sought

 Research projects

Submissions

Please submit relevant, non-confidential opportunities online [here](#)

Deadline: **6th March 2024 - 11:59 pm GMT**

Have any questions?

Contact our team at discover@in-part.co.uk

