

Launch of STDR 2025 (Jul) & Attributes of Successful Applications

Experimental

Centre

Drug Development

EDDC

STDR CO, A*STAR Jul 2025

Agency fo

Science, Technolo

nd Research



STDR Grant Information



- 1. Quantum ceiling
 - **Pre-Pilot: S\$325K** (S\$250K direct costs & 30% indirect costs)
 - Pilot: S\$1M (S\$769K direct costs & 30% indirect costs)



2. Pilot application format:

• Pitch deck + write-up on technical info

STDR Pre-Pilot & Pilot (Jul) Launch Dates and Admin Notes



Call for Pre-Pilot & Pilot Applications

- **15 Jul 2025:** Launch of 2025 (Jul) grant call on iGrants
- **28 Aug 2025, 5pm:** Deadline for submissions of applications

All applications must be endorsed by the IEO office and Research Director.



Other important dates:

- Oct 2025: Presentation to review panel (for Pre-Pilot Stream 2)
- Early Nov 2025: Presentation to review panel (for shortlisted Pilot projects)
- **Q1 2026:** Tentative LOA issuance date



Eligibility criteria

The Lead Principal Investigator (PI) should:

- a) Hold at least a 0.7 FTE primary appointment in a Singapore publicly funded research/ tertiary institution
- b) Have the relevant scientific/technical background and necessary experience to direct the project being supported by the grant.

<u>Post-doctoral researchers</u> should submit a letter from their supervisor declaring that:

- a) The supervisor supports the application
- b) The contract of the post-doc covers the entire STDR grant period
- c) The grant body funding the post-doc is agreeable to the STDR application (if relevant).

(Exceptions to the eligibility criteria will be considered on a case-by-case basis.)

Overview of STDR-Funded Projects

No.	Characteristics of Projects	Pre-Pilot Stream 1	Pre-Pilot Stream 2	Pilot
1	Grant Quantum & Duration	S\$325K*, 1 year		S\$1M*, 2 years
2	Maturity	Earlier stage, exploratory and proof-of- concept projects with some preliminary data		Mature projects validated to a certain degree
3	Type(s)	Single-asset	Platform technologies	Both single-asset & platform technologies
4	Stage(s)	Target validation	-	Target validation [^] to pre-clinical work
5	Examples	 Development and functional validation of a novel target gene for XXX Disease 	 Generalisable combinatorial screening platform for unbiased interaction discovery 	• Development of a first in class therapeutic compound for the treatment of xyz indications
		 Novel Biomarker and therapeutic target in xyz indications 	 Microfluidics for High- throughput Antibody discovery against XXX 	 Development of a proprietary T cell platform for cancer immunotherapy
		 Validating the tractability of XXX as a target for antibody therapeutics 	XXX cell-derived cancer immunotherapy platform	 Novel antibody against XXX cancer

* This is inclusive of 30% indirect costs.

^ For Pilot projects, target validation could include projects which had the target already validated in a certain indication and are currently exploring the target validation for secondary indications.

Attributes of Strong Applications

General Attributes of Strong Applications

о С С	?	Why?	Give a compelling reason for why the proposed work is relevant
Strategic Positionin		What?	Clarity in the product's role in the disease indication
Sti Pos		TPP (Target Product Profile)	A framework of the product's properties, who will use it , and the competitive advantage
nc Br	Q	Development Plan	Realistic plan with critical experiments , points of go/no-go decisions* , value inflection points that demonstrate progress or reduce uncertainty
Execution Planning		Who?	A multidisciplinary team with strong expertise in relevant areas
		Commercialisation Strategy*	Describe the business model with specifics and context

* More applicable for STDR Pilot Applications

Pilot Pitch Deck

Pitch Deck Instructions to Applicants

Presentation Format:

- 12 Minutes Presentation
- 13 Minutes Q&A

Pitch deck template

- Please ensure that your presentation deck has no more than <u>10 slides</u> (excluding cover slides, acknowledgements and annex). Annex should not have more than 10 slides.
- The questions in this template are to guide applicants in addressing key points that will help in the STDR Expert Review Panel's evaluation of the programme.
- Please answer translation-related questions (i.e. freedom-to-operate, and translation strategy), to the best of your ability, depending on the stage of development of your programme.
- Applicants are encouraged to approach their Innovation & Enterprise Office (IEO) for advice/help if necessary.
- You may use your own slide design/templates, as long as the minimum font size is 14.

Tips on STDR Pitch Deck Preparation



Link to video:



Dr Alice Chen Partner, Head of APAC



Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Opening Statement

• Why will your work be significant and impactful?

Unmet Need

- For Single Assets:
 - What disease indications are you aiming to address?
 - Why is there an unmet need in this indication?
 - Include clinician inputs where possible/relevant

• For Platforms:

• What is the deficiency or gap in current approaches that you aim to address with your platform?

Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Proposed Solution

- What is your proposed solution?
- For single assets: What is the mechanism of action?
- For platforms: What is the fundamental science behind the technology?
- How does your proposed solution address the unmet need?

[Note: Detailed data should be in the writeup instead]

Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Current Stage of Development and Key Preliminary Data

- What is the current stage of development?
- What is the proof of concept?
- Summarise the key preliminary data that supports your proposed solution and proof of concept, with specifics on the origin of the data (e.g. type of animal model, type of screening library).

[Note: Detailed data should be in the writeup instead]

Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Product Vision

- For Single Assets: Target Product Profile (TPP):
 - What is the **desired profile** of the final asset, and how is it an improvement over the current standard of care?
 - How does the current hit/lead's performance compare to the TPP (where applicable)?
 - Please describe the TPP in terms of the following:
 - **Efficacy**: What is the specific minimum efficacy needed to show differentiation against the current standard of care and competitors?
 - **Safety**: Are there any potential adverse effects, particularly in comparison to the current standard of care?
 - **Administration**: What would be the dosing frequency and mode of administration?

• For Platforms:

- What is the breath and scope of potential applications?
- How would you prioritize applications for translation?
- Why would your platform be an improvement over the current practice in these prioritized applications?

Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Competitive Landscape & Differentiation Strategy

- Current Approach and/or Standard of Care (SOC):
 - What is the current treatment, standard of care, or approach?
 - What are the deficiencies in them?

• Current Research in Development:

- Is this a first in class approach?
- If not, what are the alternatives or competing technologies in the market/under development?
- Consider both direct competitors (e.g. same target or using similar approaches), or indirect competitors (targeting different pathways for the same disease, or different approaches to address the same gap).

• Differentiating Strategy:

- What is the unique value proposition and competitive advantage of your asset or platform above the current approach/SOC and other competitors in development?
 - For e.g., is it in terms of efficacy, safety, patient profile, or cost?
- Do you have any head-to-head comparisons, or have you planned for such experiments?

Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Intellectual Property (IP) Position

Please approach your Innovation and Enterprise Office (IEO) for advice in this section if needed.

- Current IP Situation:
 - Describe the current IP situation e.g. filing status, ownership, IEO involved
- IP Strategy:
 - What is the IP strategy?
 - How does the proposed work support the IP strategy?
- Foreground IP:
 - What foreground IP will be generated from this project?
- Freedom to Operate (FTO):
 - To the best of your knowledge, is there any potential encumbrances or limitations on FTO?
 - For e.g., are there previous patent filings from other research groups and/or companies?

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<u>Translation Strategy</u> (Please answer these questions to the best of your knowledge.)

- Translation Vision:
 - Describe how the product will be translated, including the potential translation pathway (e.g. spinoff, licensing, industry partnership)
- Risk Factors:
 - Highlight the risk factors for translation (e.g. technical and regulatory barriers, market uncertainty, and implementation risk)
 - What are the proposed steps to mitigate these risks?
- Team:
 - What are the competencies of the team, and how do they contribute to the objectives?
 - For a spinoff, elaborate on the experience and track record of the newco team

• Potential Investors or Partners:

- Who are the potential investors or partners?
- Has the team spoken to potential investors or pharma partners?

• What are the Key Questions to Address for Translation?

- What do you think would be required to bring the project towards translation (i.e. towards a spinoff, licensing, or partnering)? For e.g.
 - At what point in the development stage would the technology be ready for translation?
 - What are the key datapoints that would be needed by potential investors?
 - Does these proposed datapoints address the proposed TPP and differentiation strategy?
 - What are the uncertainties to address?
- Value Inflection Points¹:
 - What are the value inflection points along the translation pathway that would help demonstrate progress and/or reduce uncertainty? (e.g. achieving in vitro, in vivo, and/or clinical proof of concept)

Note: You may expand some sections beyond 1 slide, or combine 2 sections in the same slide.

Development Plan

- Proposed STDR Work:
 - Describe the goals and objectives for this proposal, broken down into key milestones with measurable go/no-go points
 - Describe how these milestones will lead the project towards the value inflection points and one step closer towards translation
 - [Note: The detailed project plan should be in the writeup]

• STDR Budget Breakdown:

- This should be broken down by milestones as much as possible.
- Long-Term Development Timeline:
 - What is the proposed timeline, including beyond STDR, on achieving key value inflection points?
 - This should be summarised in a Gantt chart, starting from the proposed STDR work.

Write-up on Technical Info



7 Common Pitfalls for Pilot Applications



Insufficient preliminary data

- Lack target validation data
- Only virtual hits compounds identified with no further verification



Lack detailed Mechanism of Action (MOA)

• lack data on how molecule was implicated in disease, its mode of action, synergistic effect or causative link with other molecules

Encouraged to apply for **Pre-Pilot** instead



Lack relevant expertise

Unable to answer questions relating to the project during Q&A



Lack explanation on the **differentiation** of approach compared to current SOC or other therapies under development

- Did not highlight key differentiation factors of approach vs competitors
- Lack of head-to-head comparison with available competitor drugs/ SOC
- Did not present a convincing plan to overcome failed clinical trials/ other issues faced by their direct competitors



Lack consideration of how to address potential **safety issues**

- Lack safety profile data of proposed therapeutic approach/ molecule
- Did not address how they plan to mitigate the potential toxicity issues (associated with the target/molecule/ delivery method)



Lack a good TPP

No clear criteria for success

Lack a strong development plan and commercialisation strategy

- Formulation and delivery issues were not addressed
- Did not outline a clear market entry path/commercialisation pathway (e.g. spin-off/ service provider/ partnering with Pharma/ licensing)

Resubmission Strategy



Successful resubmissions

- ✓ Address reviewers' comments and make appropriate changes.
- ✓ Include additional data.
- ✓ More outstanding factors (e.g. greater commercialisation potential, potential to expand into other indications).
- ✓ **Good progress** since the last review.



Unsuccessful resubmissions

- Lack certain key aspects (e.g. a compelling differentiating factor or sufficient commercialisation potential).
- Lack significant progress since last review.

Available Resources

Target Product Profile

<u>https://learn.marsdd.com/article/defining-your-target-product-profile-</u> <u>therapeutics/</u>

Competitive Analysis

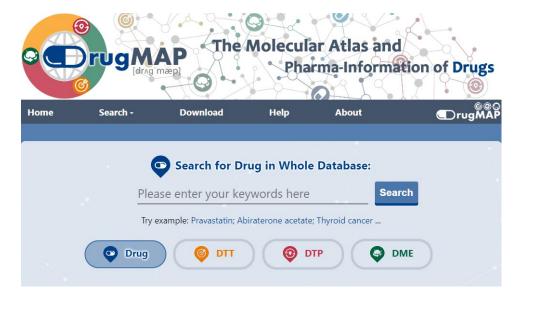
http://drugmap.idrblab.net

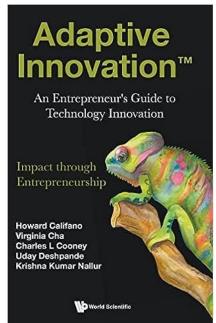
TTC Considerations in Drug Discovery

https://www.eddc.sg/eddc-insights

Book

Adaptive Innovation: An Entrepreneur's Guide to Technology Innovation







THANK YOU

For more information, please visit <u>https://www.a-star.edu.sg/Research/funding-opportunities/stdr</u>

Email: stdr_secretariat@hq.a-star.edu.sg

