CBC

ACCELERATOR AWARD

Funding your innovation:

How to build a competitive Accelerator Award proposal

Elizabeth McMath, PhD

Senior Director, New Program Innovation & Entrepreneurship

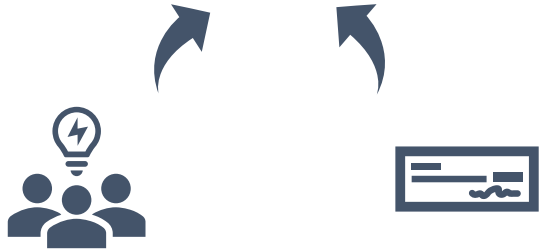
Chicago Biomedical Consortium

Key take-aways

- The **CBC's strategic imperative** is to support creation of biotech businesses in Chicago
- The **Accelerator Award** is central to achieving the CBC's ambition, bringing promising projects into our portfolio
- The CBC uses a **stage-gated process** to screen, triage, and diligence proposals for funding
- Accelerator Award proposals are evaluated and prioritized based on their **likelihood to obtain follow-on funding**
- To increase competitiveness of your application, prepare your letter of intent to **address our evaluation criteria**, with a particular *focus on the scientific evidence demonstrating potential differentiation of your innovation*

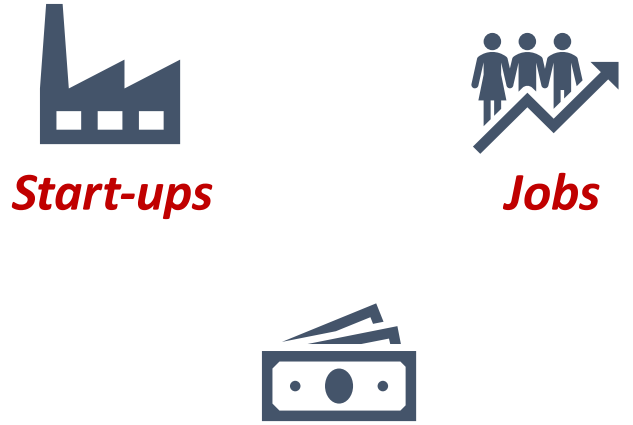
The CBC is advancing transformative science into promising innovations with our strategic advising and funding programs in service of growing the biotech ecosystem in Chicago

CBC/CBC-HITES provides: | **…to develop:** | **…with the ambition to create:**



Advising ***Funding***

Innovations



Start-ups ***Jobs***

Economic impact in Chicagoland

CBC-HITES: Chicago Biomedical Consortium Hub for Innovative Technology and Entrepreneurship in the Sciences

The Accelerator Award is central to achieving the CBC's ambition, bringing promising projects into our funded "portfolio"

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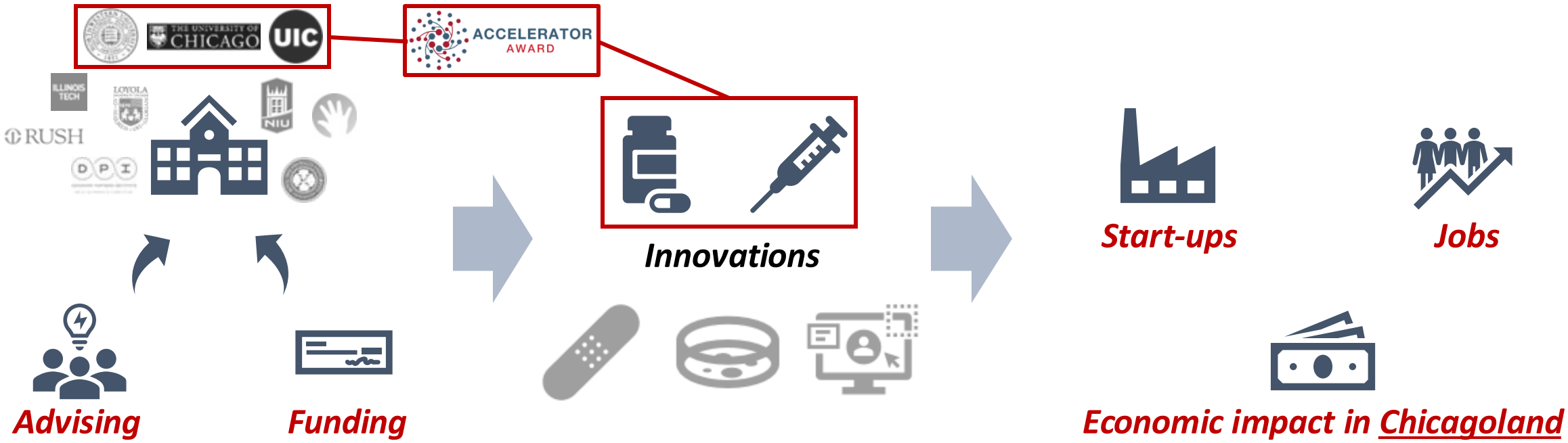

CBC-HITES: Chicago Biomedical Consortium Hub for Innovative Technology and Entrepreneurship in the Sciences

The CBC provides Accelerator Awards ($250k over two years) to advance promising translational research to a point where it could attract additional investment and spin out

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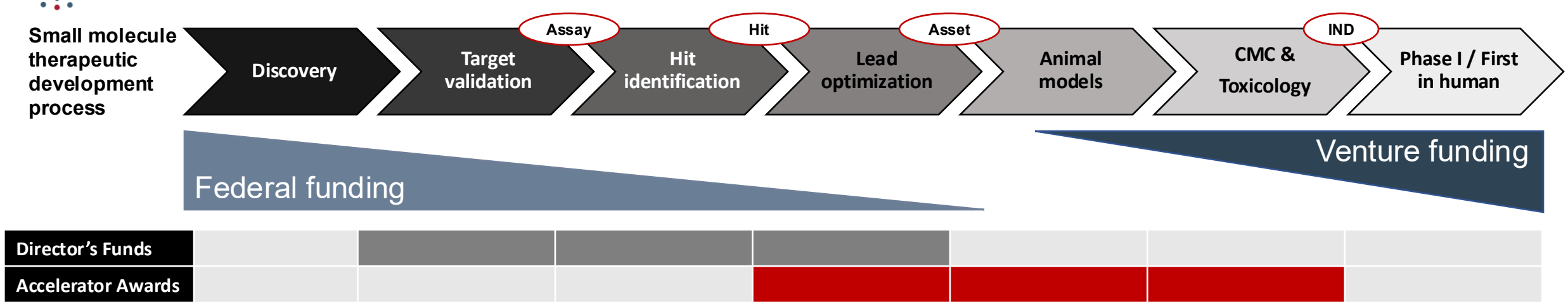


AA application requirements:

- Applicant/team must include one **tenure-track** faculty at **Northwestern, University of Chicago**, or **University of Illinois-Chicago**
- Innovation is a **therapeutic**, molecular diagnostic, or drug discovery platform
- Proposed experiment **aims must not overlap** with any other proposals being actively reviewed or awarded

What you receive as an AA awardee:

- **$250k** over two years
- Commercially-minded **guidance** on development
- **Project management** support
- **Exposure to** and feedback from **venture** investors

CBC team supporting Accelerator Award review and management

CBC staff

Elizabeth McMath PhD
Senior Director

Formerly Director Global Search & Evaluation at Novartis, Manager bioStrategies Group

Jessica Irons PhD
Senior Program Manager

Former medical writer and academic program manager

Michelle Hoffmann, PhD
Executive Director

Formerly SVP Deep tech P33, SVP Back Bay Life Science Advisors – a transaction advisory group, Leerink Swann

Eric Schiffhauer, PhD
'Drughunter', Pharma Project Manager

Formerly Director of Outreach, Deerfield, first CBC EF

CBC Entrepreneurial Fellows

Sateja Paradkar PhD

Yale

Jordan Fauser PhD

UIC UNIVERSITY OF ILLINOIS CHICAGO

Mandy Pinheiro PhD

BOSTON UNIVERSITY

Elena Boselli PhD

UIC UNIVERSITY OF ILLINOIS CHICAGO

Saffron Little PhD

MICHIGAN

Ashley Shannon PhD

WISCONSIN
UNIVERSITY OF WISCONSIN–MADISON

Tanvi Potluri PhD

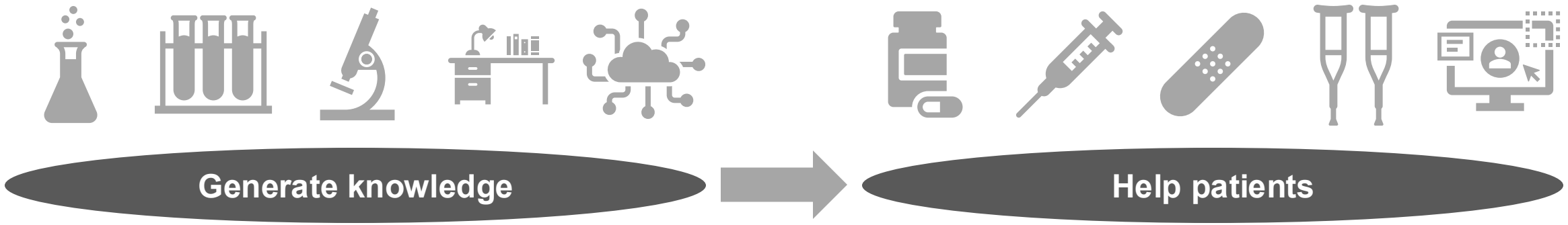
Northwestern University

Richard Martinez PhD

UNIVERSITY OF MINNESOTA

Context for our evaluation process

Academic biomedical research has the goal of helping patients, although insights do not directly translate – there are a few key steps needed to bridge that gap



How can we drive **impact for patients**?

1. Develop an ***innovation*** that addresses unmet needs
2. Obtain regulatory ***approval*** / marketing authorization
3. Achieve broad access & product ***adoption***

Industry can advance an innovation through regulatory and commercial hurdles to achieve broad adoption to reach patients

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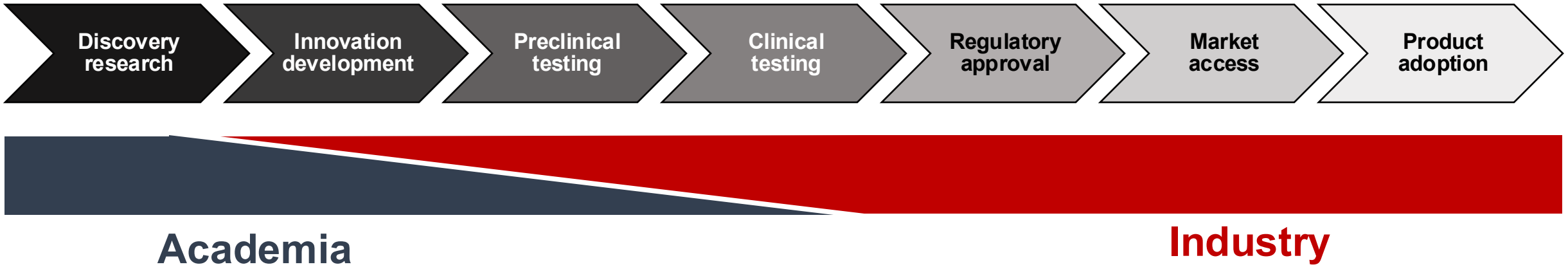
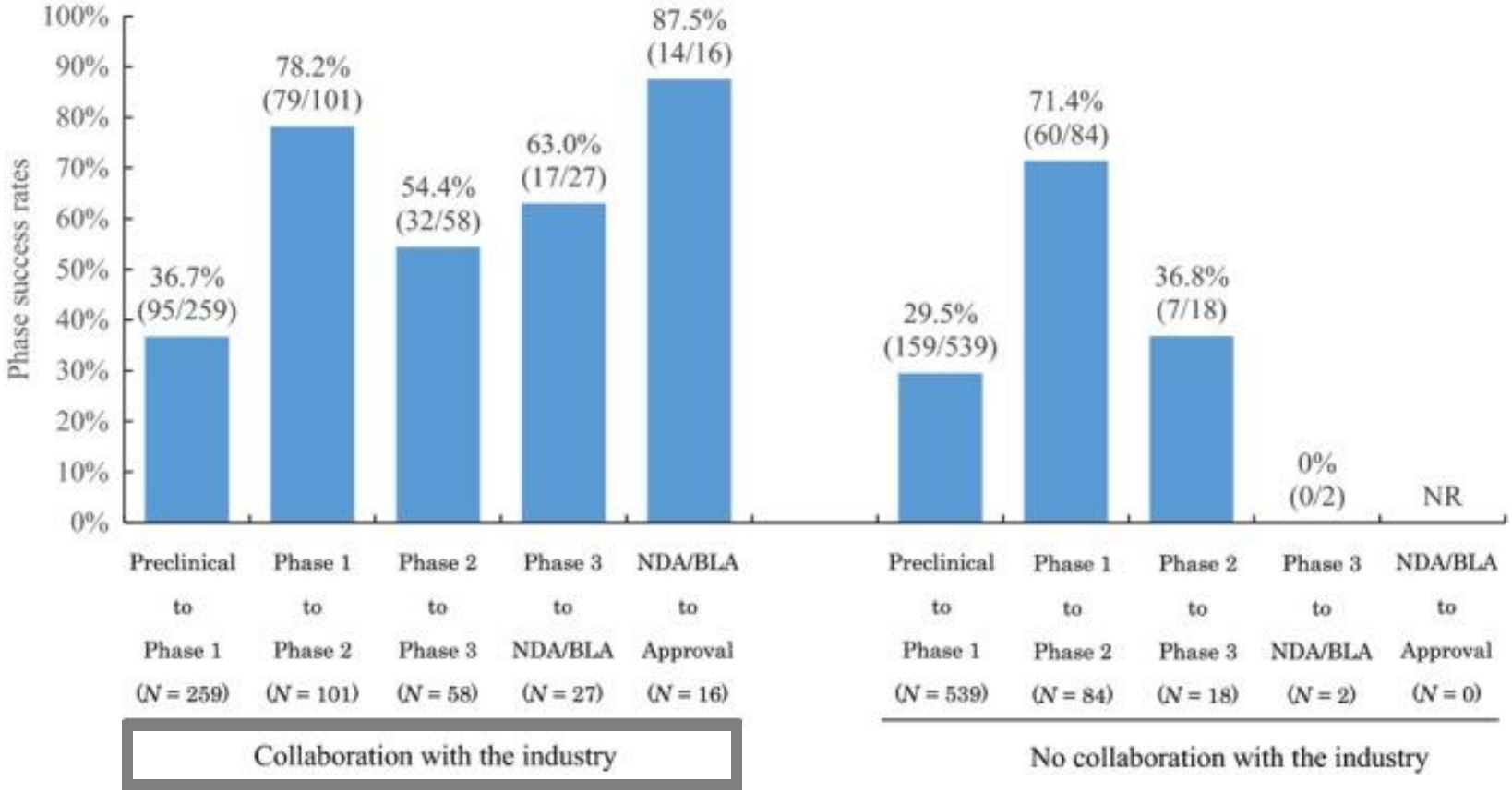


Industry involvement was correlated with higher probability of FDA approval

Academic-originated therapies had a higher likelihood of approval (LOA) when industry was involved

Data from 36 US universities from 1991-2015

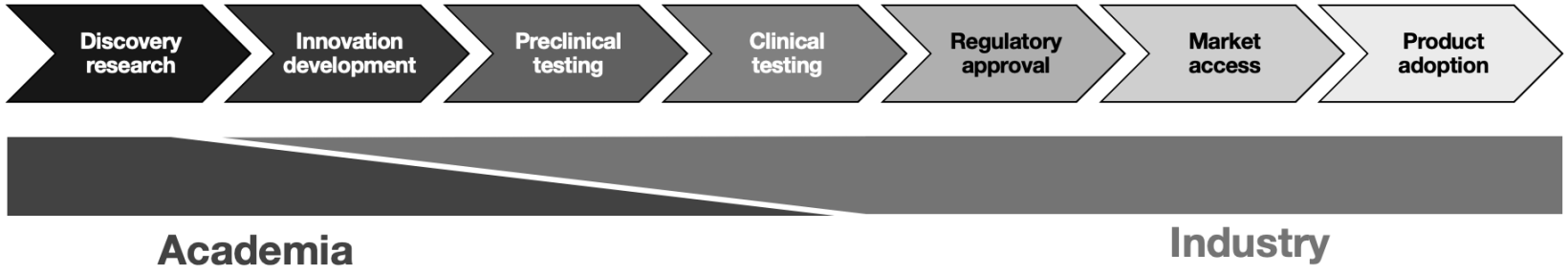
5% of preclinical projects made it to approval



Industry provides funding and expertise, but also <u>may</u> select for lower risk projects

Source: Takebe T et al., Clin Transl Sci. 2018 Nov; 11(6): 597–606

Two common ways to move innovation into industry are by (1) licensing to an established company or (2) obtaining venture funding to launch a new company



License innovation to established company (e.g., AbbVie, Baxter)

Secure venture capital investment to build a new company

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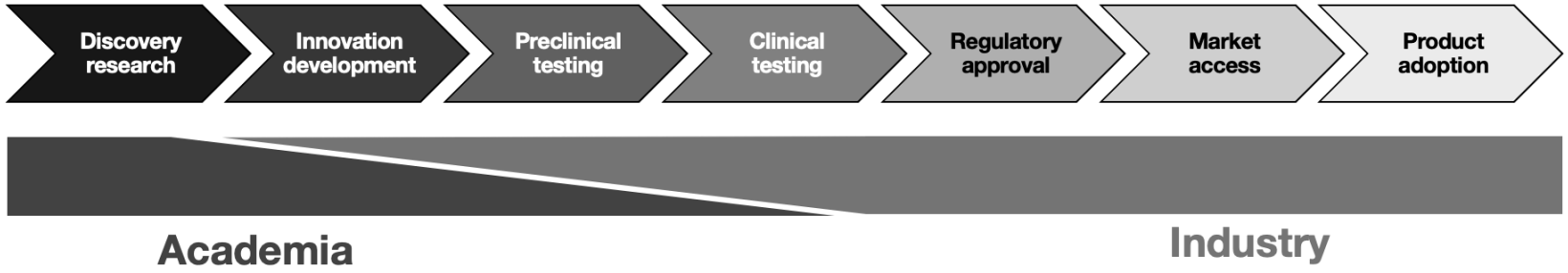

License innovation to established company (e.g., AbbVie, Baxter)

Strategic fit

- Does the innovation **address a need** for the company (e.g., fill a pipeline gap, provide new platform to facilitate internal innovation)?
- Are there **synergies** with existing sales force infrastructure or development capabilities?

What do they care about?

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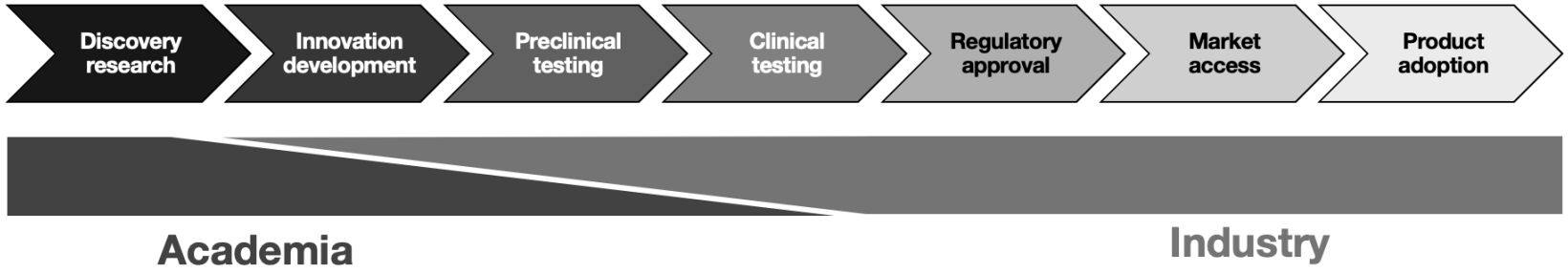

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Secure venture capital investment to build a new company

What do they care about?

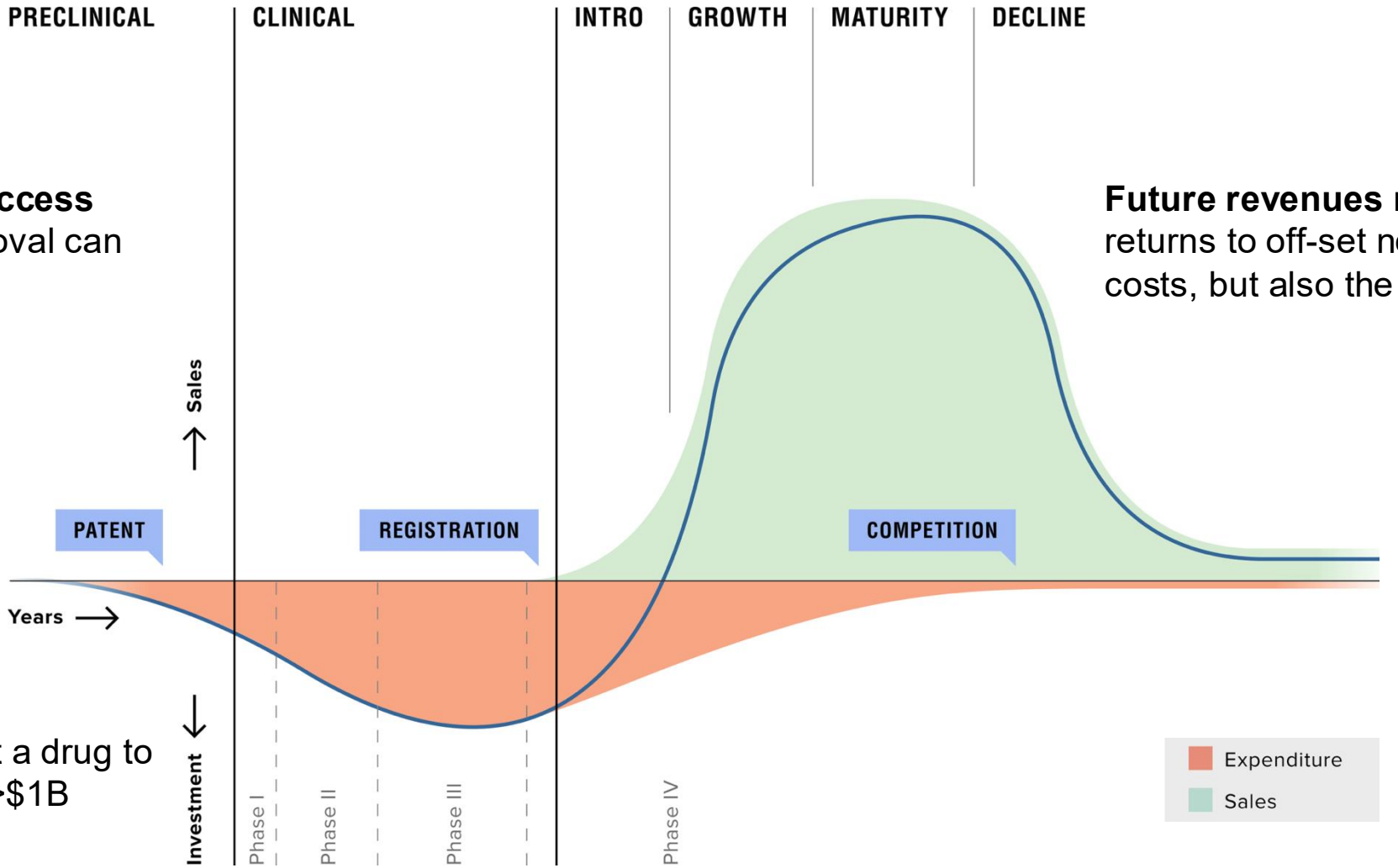
Outsized returns

- If the innovation/company succeeds, does it have potential to generate sufficient returns to offset the anticipated start-up failure rate (>90%)?

Investors consider product life cycle financials to assess potential for high returns

Likelihood of success of getting to approval can be ≤ 5%

R&D costs to get a drug to approval can be >$1B



Future revenues need to deliver returns to off-set not only R&D costs, but also the failed efforts

Source: drugpatientwatch.com; Congressional Budget Office, personal experience

Prospective investors therefore want to fund innovations with:

1. Compelling sales potential
2. Higher probability of success
3. Lower cost and shorter time to market

These concepts are central to how the CBC prioritizes projects due to our ambition to create venture-fundable businesses

The CBC evaluates projects using a framework focused on five criteria that encompass the core issues relevant to investors

Investor priorities

1. Compelling sales potential
2. Higher probability of success
3. Lower cost & shorter time to market

CBC/CBC-HITES evaluation framework

	Criteria	Key questions
1	**Transformative potential**	*How large of an impact can this have on the status quo? To what extent can the innovation establish a new standard for the disease or use application?* • Unmet need, value proposition differentiation
2	**Scientific evidence**	*How strongly do we believe in the approach? How compelling are the data?* • Target rationale, proof of mechanism, impact on disease, delivery to tissue
2 3	**Development feasibility**	*How straightforward or challenging is the path to develop this product? How will this manifest in time and cost to bring the innovation to market?* • Safety, clinical trial considerations, regulatory path, CMC/manufacturing, historic PoS
1	**Commercial opportunity**	*How large is the revenue potential? What opportunities or challenges can impact the likelihood of achieving that potential?* • Addressable population size, competitor landscape, pricing considerations, payer reimbursement, adherence
2	**Near-term execution**	*How confident are we that the team can progress program and obtain follow-on funding (after receiving the AA)?* • Funding to date, team capabilities & resources, value of IP, scope of proposal, venture funding environment

All innovators should be able to clearly articulate the transformative potential of their technology by breaking it down into the problem & solution

Unmet need: What is the problem?

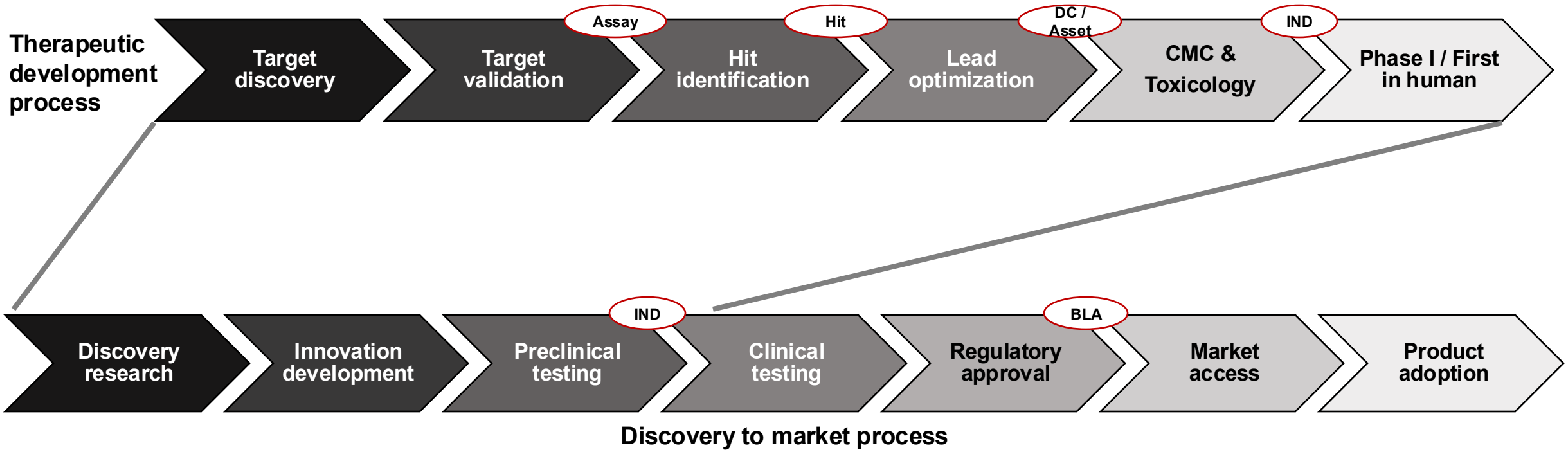
- What is the therapeutic **indication** / use case?
- What is the current **standard of care**?
- What are the **insufficiencies** of the status quo?
  - Disease progression
  - Symptoms
  - Quality of life
  - Burden of care
  - Economic impact
  - Others…

Value proposition: What is your solution?

- How transformative is your innovation?
  - What is the **magnitude of benefit**?
  - Is it a **novel approach**?
- Will this be a…..
  - **New standard** vs. additional option vs. add-on?
  - **Disease modifying** (addressing the etiology) or compensatory vs. symptomatic?
- What else, if anything, can this do?
  - Other indications/use cases

1 **Compelling sales potential**: More “transformative” innovations have greater adoption/use potential and can often defensibly command a higher price

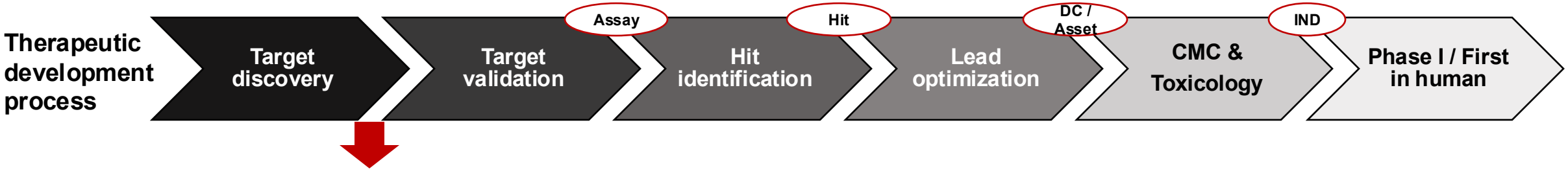
Drug discovery through therapeutic commercialization is a staged process, and some of the CBC evaluation criteria align with the different components



Discovery to market process

2 **Higher probability of success**: Projects become derisked as they advance along the development path

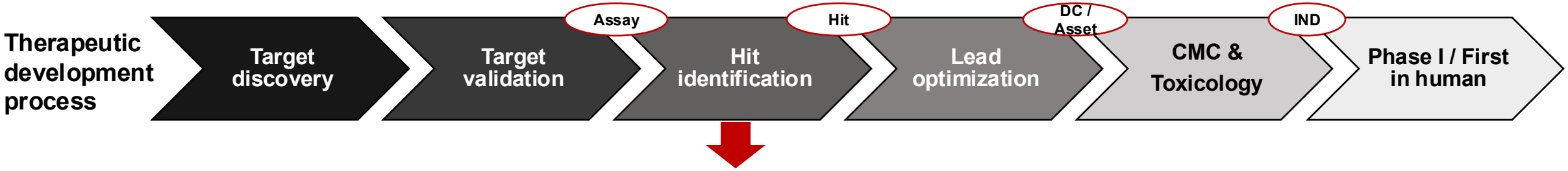
Investors want to understand how relevant a molecular target/mechanism is to disease biology to give them more confidence that drugging it will have an impact



Attributes	Key question	Potential sub-questions to be answered experimentally
Target rationale	How strong is the evidence for the target / mechanism's role in the disease biology?	1) Are **human genetic alterations** in the target associated with differences in disease susceptibility or manifestations? 2) Is the target expressed in the **right time and place** consistent with the disease? 3) Is the target **necessary** for disease development and/or progression? 4) Is a change in the target (e.g., increased/decreased expression, mutation) **sufficient** for disease development and/or progression in an *in vivo* model?

2 **Higher probability of success**: Projects become derisked as they advance along the development path

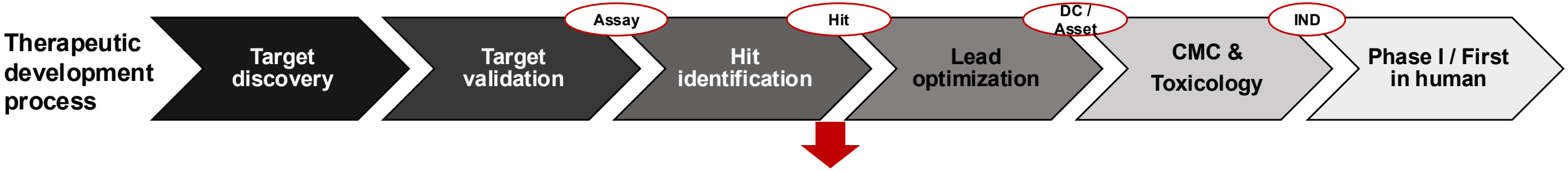
It is important to demonstrate that the drug is engaging the target and acting through the proposed mechanism to elicit downstream effects



Attributes	Key question	Potential sub-questions to be answered experimentally
Proof of mechanism	How strong is the evidence that the innovation acts on the proposed target / mechanism?	1) Does the drug interact with the target molecule? • What are the **target engagement** dynamics (binding strength, reversable vs. irreversible, etc.)? 2) What are the **mechanistic consequences** (e.g., downstream readouts) of target binding? • *In vitro* and *in vivo*

2 **Higher probability of success**: Projects become derisked as they advance along the development path

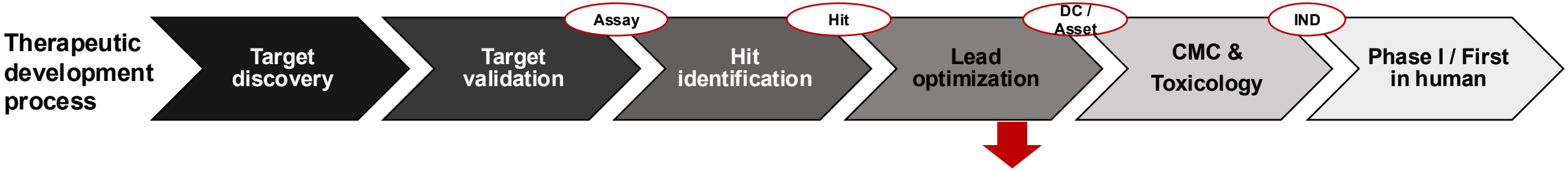
Even if a drug is activating a particular mechanism, it is key to demonstrate that it is impacting disease manifestations in a believable model (when available)



Attributes	Key question	Potential sub-questions to be answered experimentally
Impact on disease	How strong is the evidence that manipulation of the target / mechanism can impact disease pathology, particularly at a relevant time and place?	1) What are the **phenotypic consequences** (e.g., symptomatology, lifespan) of target/mechanism manipulation in disease models? • *In vitro* and *in vivo* 2) Is the activity **dose-dependent**? 3) How well do the animal **models recapitulate human disease** biology?

2 **Higher probability of success**: Projects become derisked as they advance along the development path

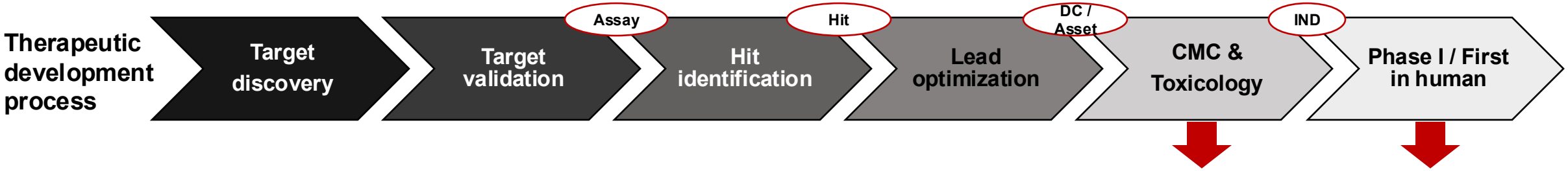
Demonstrating drug delivery to the appropriate site with pharmacology that supports realistic dosing is required to advance the innovation toward IND



Attributes	Key question	Potential sub-questions to be answered experimentally
Delivery	Can the innovation get to the right place at the right time *without* having off-target effects?	1) **Where is the target present** throughout the body at the relevant timepoints? 2) What tissue/cells/compartment **can the drug reach** using different routes of administration? 3) What are the consequences when the target/mechanism is **affected in a non-target** tissue/cell/compartment?
Drug properties	Can the drug achieve an appropriate PK/PD profile with intended dosing?	1) What is the time in **therapeutic dose** range? 2) What are the **metabolites**? What effects do they have? 3) How amenable is the innovation to **modifications** (e.g., medicinal chemistry)?

2 **Higher probability of success**: Projects become derisked as they advance along the development path

Looking ahead beyond the scientific evidence, investors want to understand the size (e.g., risk & cost) of hurdles that lie ahead on the road to product approval



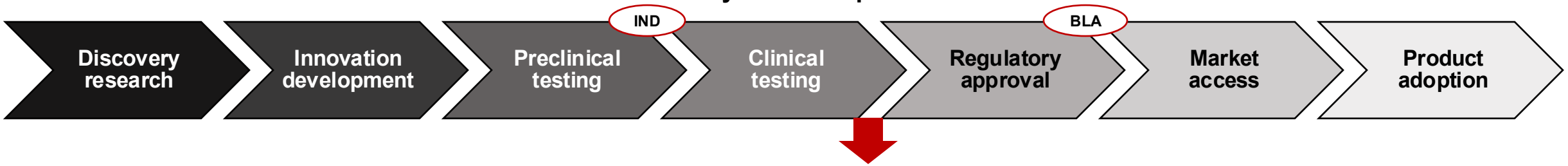
Attributes	Key question	Potential sub-questions
Chemistry, Manufacturing, Controls (CMC)	How much of a hurdle will CMC be (timing & cost)?	1) **How complex is the process** to manufacture the product? 2) Are there **available CDMOs** to support this process? 3) Is there **IP around the process** that needs to be licensed?
Safety	Is there evidence of any safety risks with this innovation or related approaches?	1) **How specific is the activity** to the specified molecular target? 2) Have any **clinical safety data** been generated for drugs with a similar (or same) profile? What were the consequences?

2 **Higher probability of success**: Projects become derisked as they advance along the development path

3 **Lower cost & shorter time to market**: Straightforward & proven development paths may be preferred

Historic precedent may provide an estimate of the potential time, cost, and risk associated with the clinical development path in an indication

Discovery to market process



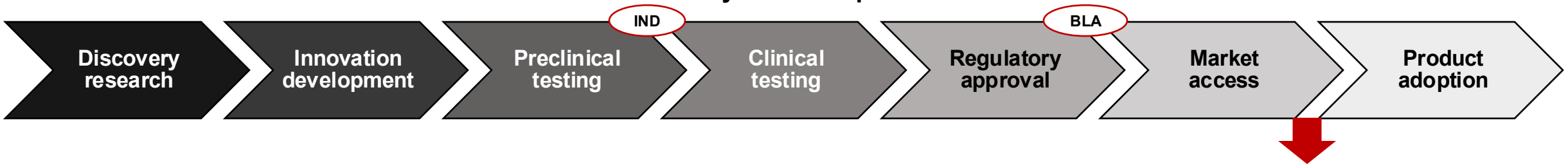
Attributes	Key question	Potential sub-questions
Clinical development	How **long and complex** is the clinical development plan?	1) Is there **regulatory precedent** or FDA guidance on an approval path? 2) Are the clinical **endpoints** short and straightforward? 3) What is the requisite **trial size**? 4) Who is the target **trial population**? How difficult will the recruit be? 5) Is an **active control** required?
	Does the disease or approach have a higher than average **rate of trial failure**?	1) What have historically been the **key challenges** encountered in clinical development for the disease or modality?

2 **Higher probability of success**: Projects become derisked as they advance along the development path

3 **Lower cost & shorter time to market**: Straightforward & proven development paths may be preferred

Opportunity size is evaluated by estimating number of patients who will receive the therapy and the justifiable / reimbursable price

Discovery to market process



Attributes	Key questions
Market size	1) How much **revenue** is being generated by therapies used to treat the disease now?
Pipeline	1) What are other **approaches in development** ahead of your innovation?
Patient volume	1) How many patients could be treated with the innovation? • Target **population size** • Market **share** (use vs. other options)
Pricing	1) What are **analogous therapies priced at**? 2) What **value-based price** can be justified by the benefits gained with the innovation?
Access	1) What access **restrictions** do insurance payers or hospital systems put on similar therapies?

1 **Compelling sales potential**: In order to have potential for sufficient returns, investors want to see a commercial path to peak revenue potential of >$0.5B

Investors consider both intrinsic & extrinsic situational factors when evaluating the attractiveness of an innovation and comparing trade-offs across opportunities

Intrinsic factors:

- Team **capabilities**
- **Funding** to date
  - Who has funded this work?
  - How much funding has contributed to the science & innovation development to date?
- Strength of **IP**
  - Composition of matter > method of use > process

Extrinsic factors:

- **VC interest** – *how hard will it be to find others to invest?*
  - How many investments have VC made in this disease/therapy area or with this modality?
  - Is VC interest trending up or down vs. historic precedent?
- Prospective **partner interest** – *looking ahead to exit options*
  - How many recent deals have established companies done in this disease/therapy area and/or modality?

2 **Higher probability of success**: While investors are always looking for the next big thing, they also value aspects of an innovation that could lower risk including experience/track record and precedent interest

Accelerator Award review process

The Accelerator Award review process is stage-gated and leverages external review boards to gain perspective and advice on projects to inform funding decisions

Call for proposals

- Attend information session (**TODAY**)
- Submit letter of intent (LOI), aligning content with evaluation criteria
- Due July 1st

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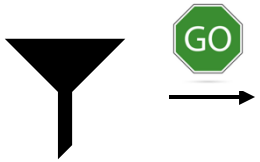
Screening & prioritization



- ~One-two months
- Program manager reviews IP status (provisional often required)
- Assigned to team (two Entrepreneurial Fellows + one CBC staff) for review according to the **screening template**
- Only material in application is considered, no Q&A with PI
- Limited outside research (e.g., pipeline, deals)
- **CBC internal review board** ranks proposals and prioritizes top LOIs for further review

CBC uses screening template to prioritize projects based on composite score

For context:

1. **Problem being addressed**: *What is the indication or technological challenge that the innovation is addressing?*
2. **Current standard approach**: *How is this indication/problem currently being treated or the technological challenge addressed?*

Topic	Question	Approaches to assess	Rating (1 low, 3 high)
Transformative potential	*How differentiated is this innovation from the current standard?*	1. Evaluate the proposed benefits of the innovation relative to the current standard • How large of an impact will these benefits have on the problem being addressed?	
Scientific evidence	*How strongly do we believe in the approach? How compelling are the data?*	1. How advanced is the project / in what stage of development (e.g., target validation, hit generation)? 2. How validated is the target (or approach)? 3. How well is the proposed mechanism demonstrated by the data generated to date? 4. How much does the innovation impact the phenotypes of the disease/condition being studied?	
Development feasibility	*Will this be more or less challenging to develop and get approved?*	1. Is there a precedent clinical development path? 2. Is there a significant challenge with the translatability of the preclinical models? 3. How large, long, challenging (heterogenous patient population, active control, etc.) are the trials? 4. How well established is the manufacturing process of the proposed therapeutic?	
Commercial opportunity	*How compelling is the commercial opportunity?*	1. How competitive is the clinical pipeline (# of assets in P1/2/3, types of MOAs, clinical data)? 2. Rough bottom-up analysis where no established market or top-down market capture analysis based on established approaches 3. Any pricing or commercial considerations (e.g., hospital product, generic competition)	
Near-term execution	*To what extent is this investable / of interest to VC and/or strategics?*	1. What evidence is there that VCs are investing in technologies/companies with similar attributes to the innovation (e.g., number and size of seed, series A, B in ≤5 yrs)? 2. How interested is pharma in this approach/area?	

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LOI triage

- ~Three months from triage start
- Assigned to team of EFs + manager for triage
- EF team will submit question list to PI and have meeting to better understand the scientific evidence and proposed experiments
- EF team will conduct deeper outside research to populate **triage evaluation framework**
- Four slide triage analysis is presented to an **external Scientific Review Board** of industry, academic, & VC representatives

Triage builds on initial screening questions, but includes more in-depth secondary data analysis

LOI triage framework summary

Criteria	Key questions and considerations
Transformative potential	*How large of an impact can this have on the status quo? To what extent can the innovation establish a new standard for the disease or use application?* • Unmet need, value proposition differentiation
Scientific evidence	*How strongly do we believe in the approach? How compelling are the data?* • Target rationale, proof of mechanism, impact on disease, delivery to tissue
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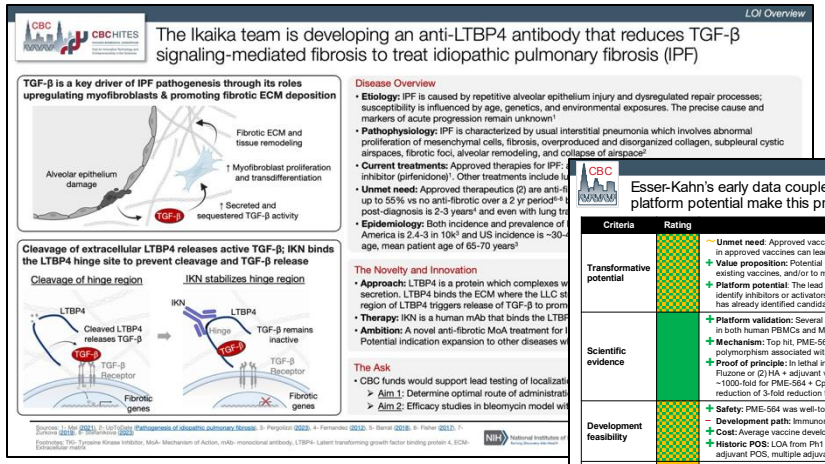
Near-term execution	*How confident are we that the team can progress program and obtain follow-on funding (after receiving the AA)?* • Funding to date, team capabilities & resources, value of IP, scope of proposal, venture funding environment

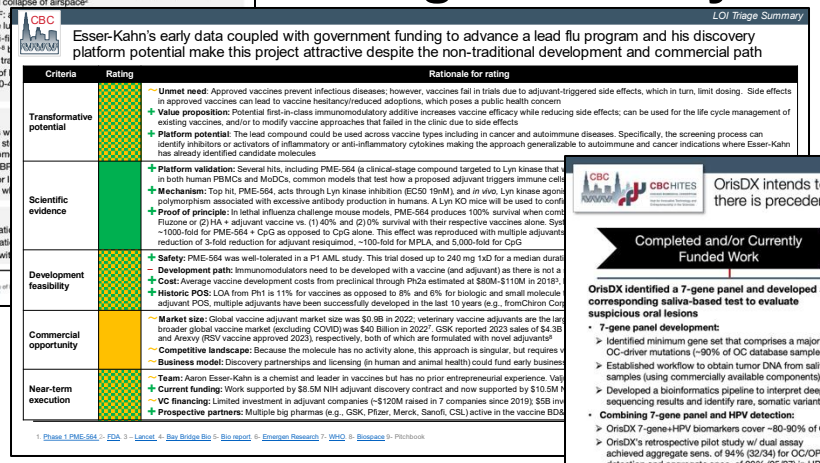
The CBC team prepares a four-slide deck to share with our Scientific Review Board

Overview



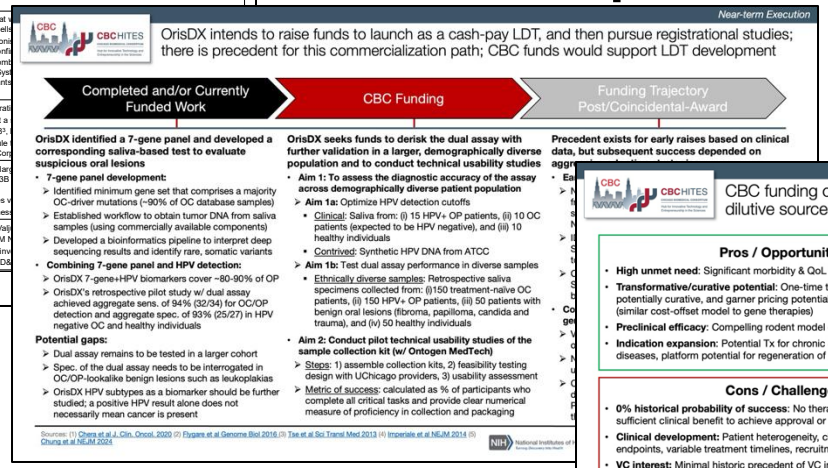
Innovation, proposal request, and the target indication/use application

Triage summary



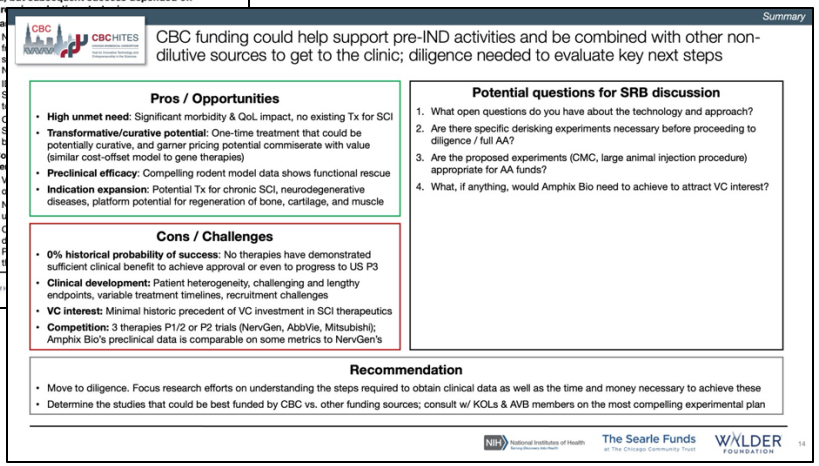
Assessment framework with qualitative ratings

Next steps



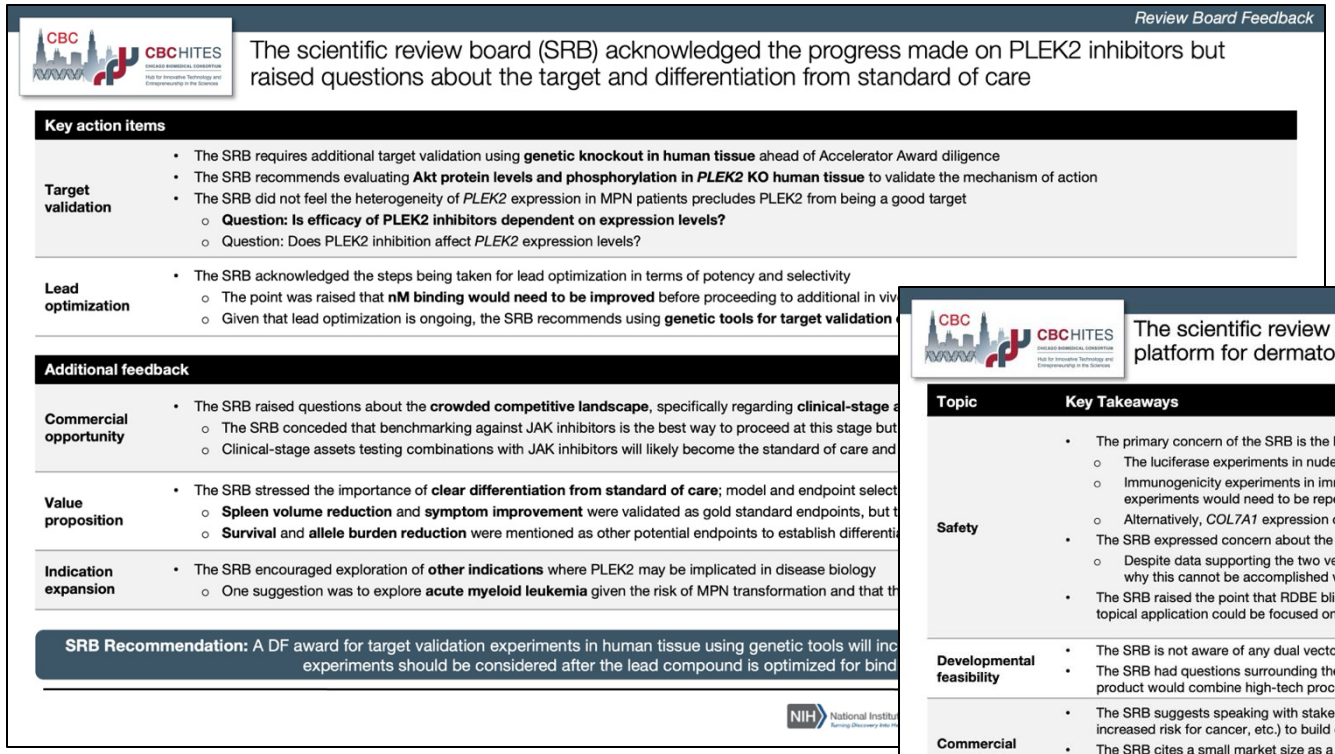
Award ask in context of science to date, gaps, and funding trajectory

Summary



Key takeaways of analysis (pros/cons), recommendation, questions for SRB discussion

The Scientific Review Board provides feedback and recommendations for next steps, which can include 1) proceed to diligence, 2) provide a Director's Fund to address a key open question, 3) decline to fund (with direction on what, if anything, would increase project investability)



Review Board Feedback

CBC CBC HITES

The scientific review board (SRB) acknowledged the progress made on PLEK2 inhibitors but raised questions about the target and differentiation from standard of care

Key action items

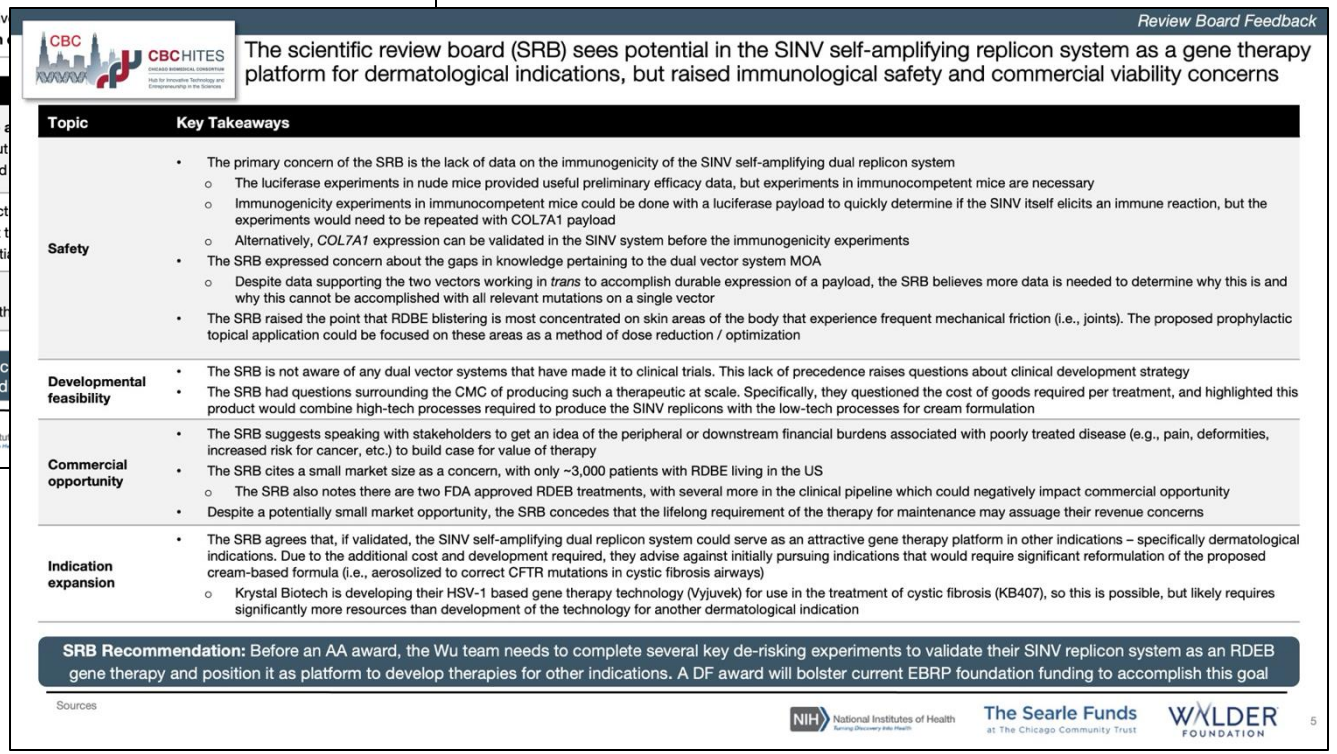
Target validation	• The SRB requires additional target validation using **genetic knockout in human tissue** ahead of Accelerator Award diligence • The SRB recommends evaluating **Akt protein levels and phosphorylation in *PLEK2* KO human tissue** to validate the mechanism of action • The SRB did not feel the heterogeneity of *PLEK2* expression in MPN patients precludes PLEK2 from being a good target o **Question: Is efficacy of PLEK2 inhibitors dependent on expression levels?** o Question: Does PLEK2 inhibition affect *PLEK2* expression levels?
Lead optimization	• The SRB acknowledged the steps being taken for lead optimization in terms of potency and selectivity o The point was raised that **nM binding would need to be improved** before proceeding to additional in viv o Given that lead optimization is ongoing, the SRB recommends using **genetic tools for target validation**

Additional feedback

Commercial opportunity	• The SRB raised questions about the **crowded competitive landscape**, specifically regarding **clinical-stage a** o The SRB conceded that benchmarking against JAK inhibitors is the best way to proceed at this stage but o Clinical-stage assets testing combinations with JAK inhibitors will likely become the standard of care and
Value proposition	• The SRB stressed the importance of **clear differentiation from standard of care**; model and endpoint select o **Spleen volume reduction** and **symptom improvement** were validated as gold standard endpoints, but t o **Survival** and **allele burden reduction** were mentioned as other potential endpoints to establish differenti
Indication expansion	• The SRB encouraged exploration of **other indications** where PLEK2 may be implicated in disease biology o One suggestion was to explore **acute myeloid leukemia** given the risk of MPN transformation and that th

SRB Recommendation: A DF award for target validation experiments in human tissue using genetic tools will inc experiments should be considered after the lead compound is optimized for bind

NIH National Institu



Review Board Feedback

CBC CBC HITES

The scientific review board (SRB) sees potential in the SINV self-amplifying replicon system as a gene therapy platform for dermatological indications, but raised immunological safety and commercial viability concerns

Topic	Key Takeaways
Safety	• The primary concern of the SRB is the lack of data on the immunogenicity of the SINV self-amplifying dual replicon system o The luciferase experiments in nude mice provided useful preliminary efficacy data, but experiments in immunocompetent mice are necessary o Immunogenicity experiments in immunocompetent mice could be done with a luciferase payload to quickly determine if the SINV itself elicits an immune reaction, but the experiments would need to be repeated with COL7A1 payload o Alternatively, *COL7A1* expression can be validated in the SINV system before the immunogenicity experiments • The SRB expressed concern about the gaps in knowledge pertaining to the dual vector system MOA o Despite data supporting the two vectors working in *trans* to accomplish durable expression of a payload, the SRB believes more data is needed to determine why this is and why this cannot be accomplished with all relevant mutations on a single vector • The SRB raised the point that RDBE blistering is most concentrated on skin areas of the body that experience frequent mechanical friction (i.e., joints). The proposed prophylactic topical application could be focused on these areas as a method of dose reduction / optimization
Developmental feasibility	• The SRB is not aware of any dual vector systems that have made it to clinical trials. This lack of precedence raises questions about clinical development strategy • The SRB had questions surrounding the CMC of producing such a therapeutic at scale. Specifically, they questioned the cost of goods required per treatment, and highlighted this product would combine high-tech processes required to produce the SINV replicons with the low-tech processes for cream formulation
Commercial opportunity	• The SRB suggests speaking with stakeholders to get an idea of the peripheral or downstream financial burdens associated with poorly treated disease (e.g., pain, deformities, increased risk for cancer, etc.) to build case for value of therapy • The SRB cites a small market size as a concern, with only ~3,000 patients with RDBE living in the US o The SRB also notes there are two FDA approved RDEB treatments, with several more in the clinical pipeline which could negatively impact commercial opportunity • Despite a potentially small market opportunity, the SRB concedes that the lifelong requirement of the therapy for maintenance may assuage their revenue concerns
Indication expansion	• The SRB agrees that, if validated, the SINV self-amplifying dual replicon system could serve as an attractive gene therapy platform in other indications – specifically dermatological indications. Due to the additional cost and development required, they advise against initially pursuing indications that would require significant reformulation of the proposed cream-based formula (i.e., aerosolized to correct CFTR mutations in cystic fibrosis airways) o Krystal Biotech is developing their HSV-1 based gene therapy technology (Vyjuvek) for use in the treatment of cystic fibrosis (KB407), so this is possible, but likely requires significantly more resources than development of the technology for another dermatological indication

SRB Recommendation: Before an AA award, the Wu team needs to complete several key de-risking experiments to validate their SINV replicon system as an RDEB gene therapy and position it as platform to develop therapies for other indications. A DF award will bolster current EBRP foundation funding to accomplish this goal

Sources

NIH National Institutes of Health | The Searle Funds at The Chicago Community Trust | WALDER FOUNDATION

5

The Accelerator Award review process is stage-gated and leverages external review boards to gain perspective and advice on projects to inform funding decisions

Call for proposals

- Attend information session (**TODAY**)
- Submit letter of intent (LOI), aligning content with evaluation criteria
- Due July 1st

Screening & prioritization

- ~One-two months
- Program manager reviews IP status (provisional often required)
- Assigned to team (two Entrepreneurial Fellows + one CBC staff) for review according to the **screening template**
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- **CBC internal review board** ranks proposals and prioritizes top LOIs for further review

LOI triage

- ~Three months from triage start
- Assigned to team of EFs + manager for triage
- EF team will submit question list to PI and have meeting to better understand the scientific evidence and proposed experiments
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- Four slide triage analysis is presented to an **external Scientific Review Board** of industry, academic, & VC representatives

Diligence

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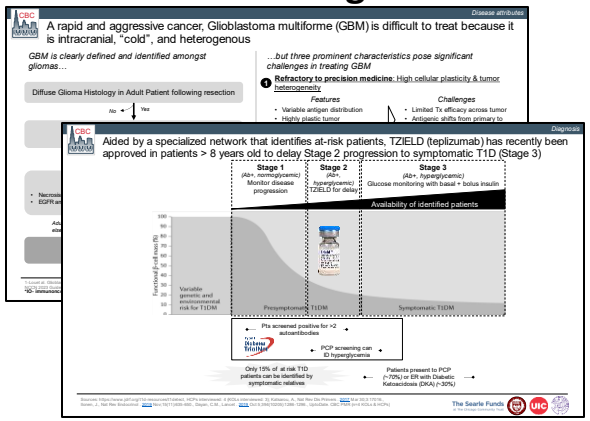
- Full experimental plan including timeline and budget will be built
- Investment thesis developed by EFs (w/ PI input) and presented to an **external Accelerator Venture Board** of industry & VC representatives

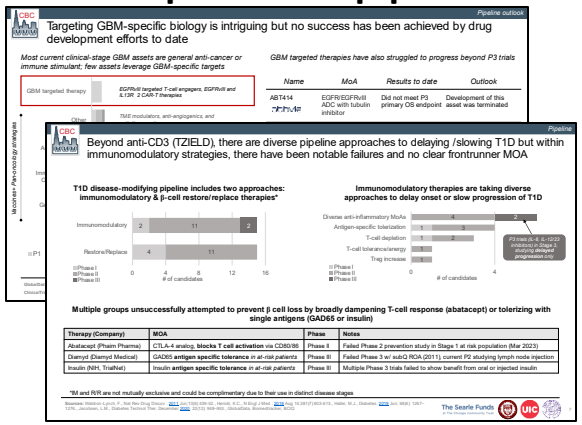
Pitch to investment committee

Applications passing triage undergo detailed diligence to develop an investment thesis which is then presented jointly by the CBC & PI to the Accelerator Venture Board

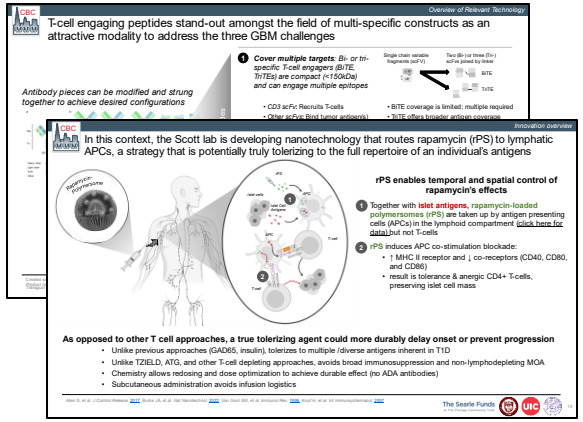
Disease background



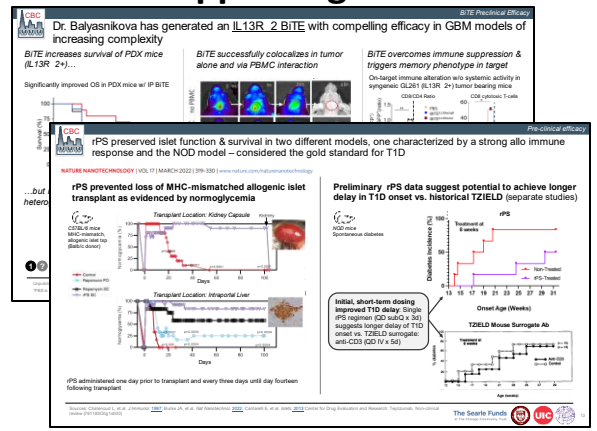
Competition & pipeline



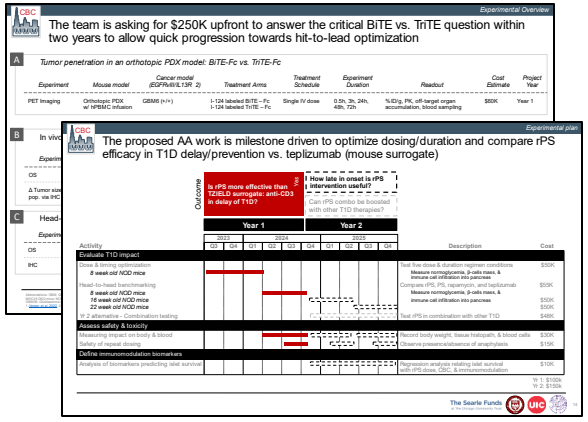
Innovation



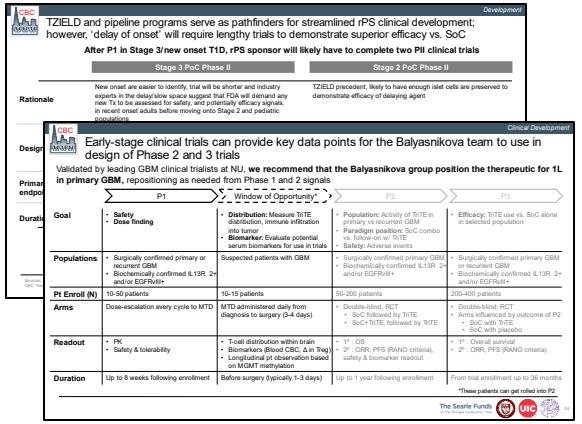
Supporting data



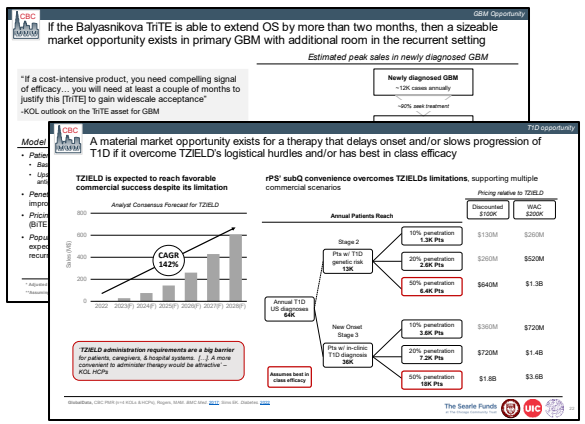
Experimental plan



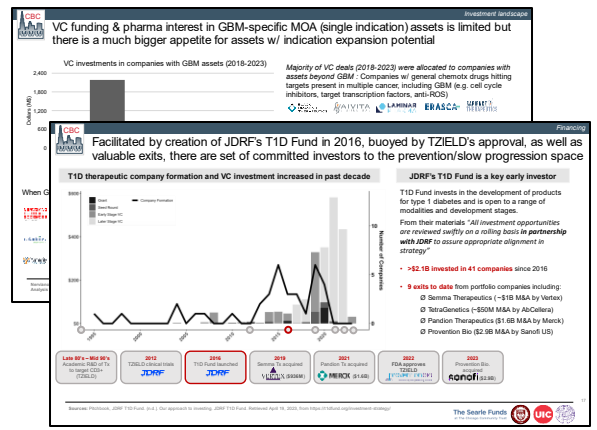
Development considerations



Commercial opportunity



Financing landscape



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Pitch to investment committee

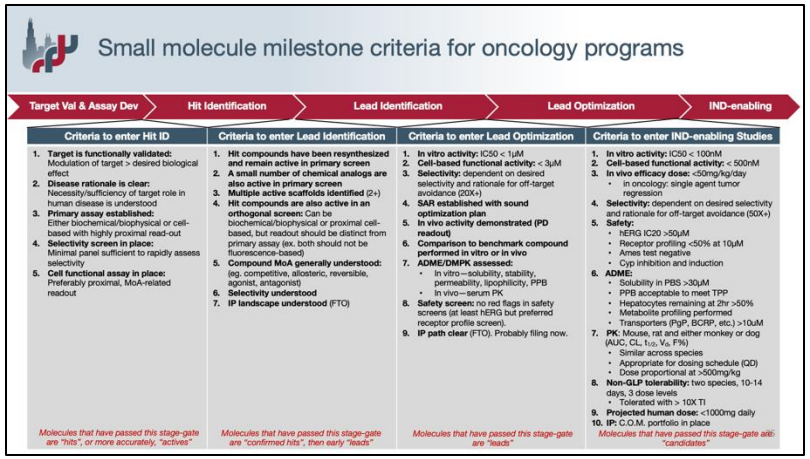
Award granted

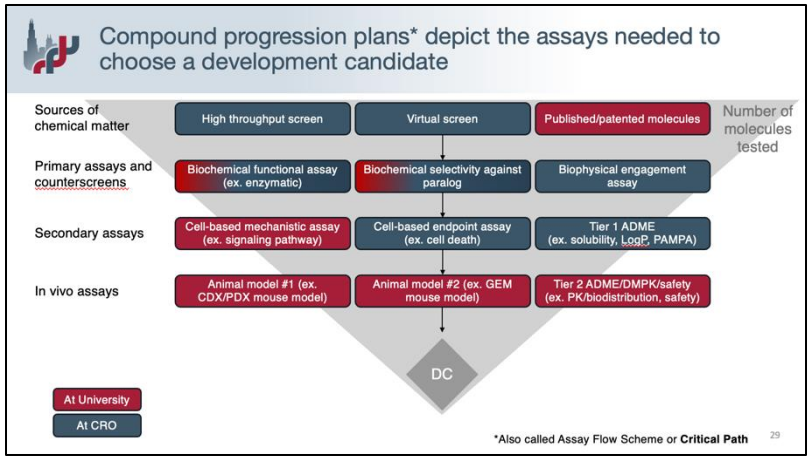
- ~Two to six months for release of funds
- If Accelerator Venture Board endorses projects, CBC will work with PI team to finalize experiment work scope documents and process them through the Office of Sponsored Research
- CBC will assign an EF project manager to closely follow the project and support next steps to commercialization
- Project management activities can include:
  - CRO management
  - Data review & organization
  - Identification of next funding sources
  - Support of funding activities (e.g., SBIR applications, pitch decks, investor reach out)

Project management

CBC project management provides comprehensive discovery and development plans to guide funded programs to (and through) follow-on investment

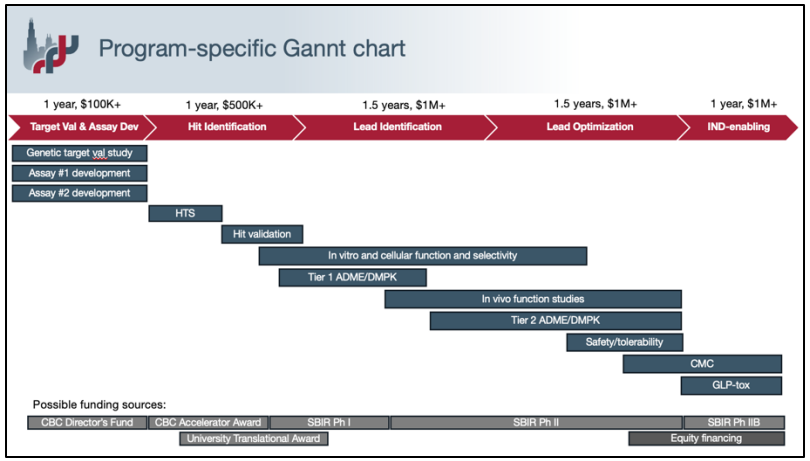
Milestones defined by industry standard stage gate criteria

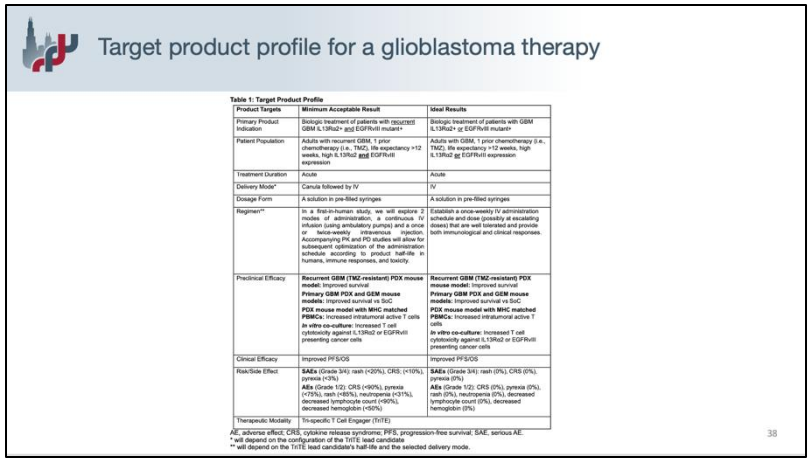




Assay flow scheme or compound progression plan

Gantt chart / project timeline, budget, and funding sources





Target product profile refinement

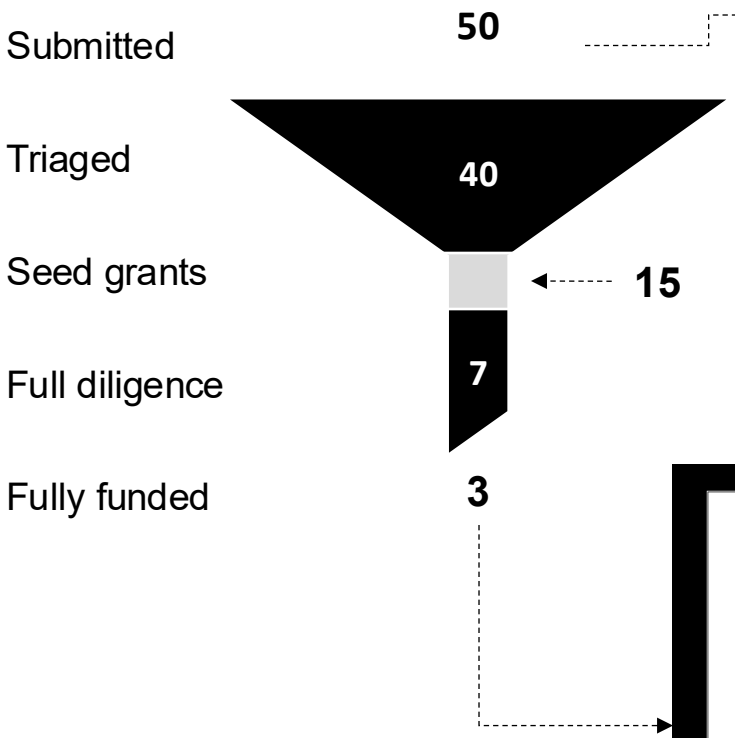
The CBC has 18 active projects in our funded portfolio

Therapy Area	Modality	Target/MOA	Indication	Target Val	Hit ID	Lead ID	Lead Op	Investigator	Company
Oncology	**Small Mol**	**Mut-KRAS pathway**	**KRAS-mutant tumors**					**Kelley**	***Stealth Co***
	Biologic	**IL13RA2, EGFRvIII**	**GBM**					**Balyasnikova**	
	Small Mol	MYC	Solid tumors					Abdulkadir	Vortex
	PROTAC	Dot1L	ALL					Abdulkadir	
	Small Mol	PLEK2	MDS					Ji	Aplexis
	Small Mol	UBE3A	HPV+ HNSCC					Kiyokawa	
	Cell Tx	CAR-T Platform	Liquid tumors					Shukla	Varchas
	Small molecule	TDO2	Uterine fibroids					Bulun	Medusa
Inflammation and immunology	**Nanoparticle**	**mTOR**	**T1D and autoimmune**					**Scott**	**SNC**
	Peptide	KLC1c	Cardiac IRI					Muller	Laborecom
	Small Mol	Synthetic melanin	Radiation dermatitis					Gianneschi	Melanyze
	Biologic	LTBP4	Fibrotic conditions					Demonbreun	Ikaika
	Platform	NFkB/IRF	Vaccine reactogenicity					Esser-Kahn	Signl
	Small Mol	CLDN2	IBD					Weber	Claudyn
Rare disease	Gene Tx	COL7A1	RDEB					Wu	
	Small Mol	TNNI3	Hypertrophic CM					Goldspink	
Neuroscience	Small molecule	KALRN	Fragile X Syndrome					Penzes	Synaptomed
	Platform	Target ID	Rett Syndrome					Kozorovitsky	Neuroplastica

Bold – full awards, $250K+; Plain text – key de-risking awards, ~$60K

Projects receiving CBC funding address a clear unmet need, have compelling scientific evidence, and have potential to generate sufficient sales to attract VC or pharma interest

CBC review funnel



Characteristics of projects screened and triaged out:

- Insufficient scientific evidence – limited data supporting target, mechanism, and/or efficacy
- Limited differentiation vs. current standard or clinical pipeline
- Limited commercial potential
- No IP filed – can be "on hold" until provisional filed

Projects that received an Accelerator Award *(new process)*

Kelley - NU

2022

Cancer – KRAS gof

Based on: Novel action & target; compelling data

Developing novel chemistry
Proving concept in animals

Term Sheet

Pending Option Negotiation

Scott & Burke - NU

2022

Prevention of T1D

Based on: Immune platform, superiority to market leader

Refining nanoparticle dosing
Developing novel formulation

In progress

2nd Year Funding

Balyasnikova - NU

2023

Glioblastoma

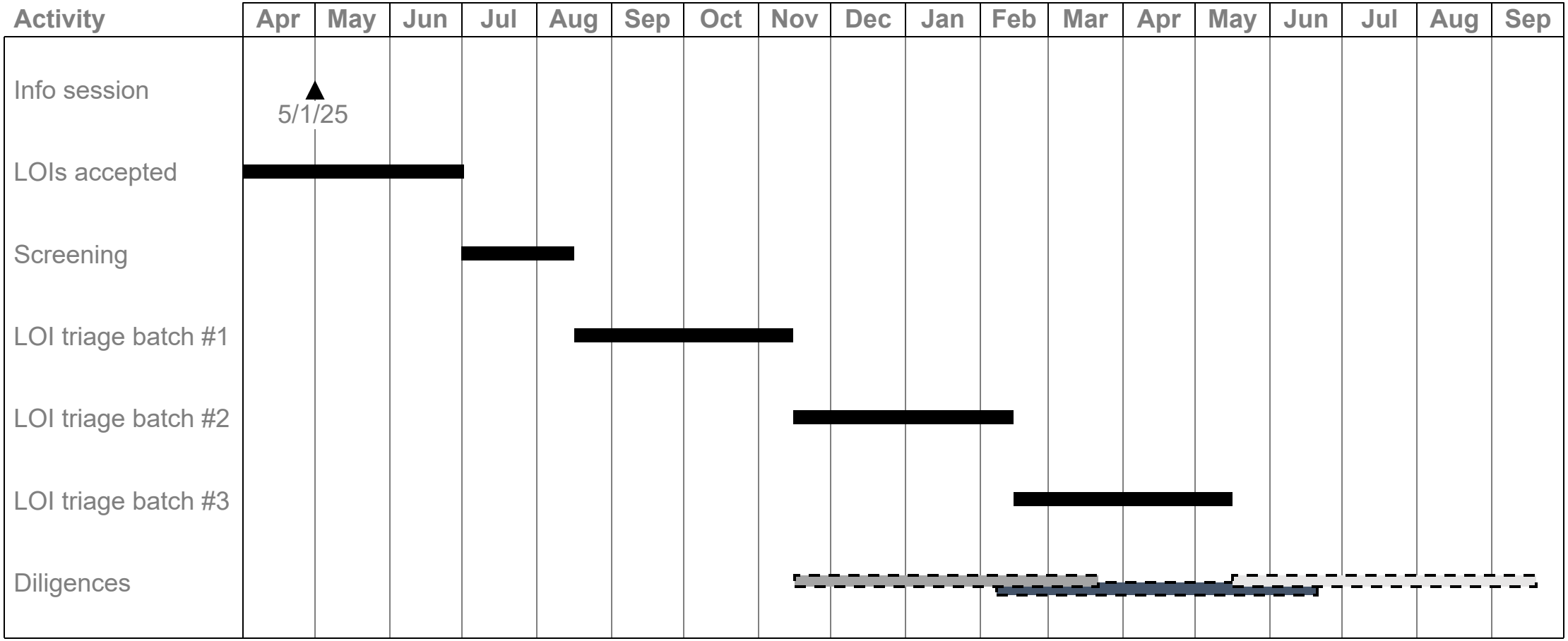
Based on: Novel protein engineering, data, team

Optimizing antibody combos
Proving concept in animals

On path to IND

NIH grant in submission

Potential timeline for Accelerator Award reviews



Application checklist

Questions to ask yourself before applying:

✓ **IP:** Have you met with your tech transfer representative? Has a provisional (or later) patent been filed?

- *CBC presentations are non-confidential and therefore the innovation must have sufficient IP files to allow this*

✓ **Differentiation:** Does your innovation have potential offer superior efficacy over the current standard?

✓ **Target & mechanism:** Have you demonstrated how your innovation works?

✓ **Proof of efficacy:** Have you shown that your innovation can make a difference in the problem its addressing?

Next steps:

- Apply at https://chicagobiomedicalconsortium.org/awards/accelerator-award
- Review the RFA
- Body of application can be up to 10 pages (including references).
  - *Application can be shorter; we wanted to allow sufficient space for data sharing as the screening step will be done only on materials submitted*
- Please share figures including unpublished data
  - *CBC is under CDA with your institutions*
- Key questions to address in your application are listed in RFA & align with the topics covered in this presentation