



Partnering overview

Q4 2020

BridgeBio's mission is to accelerate therapies for genetic diseases

Our Core Values

1. **Put patients first** – Bridge the gaps between scientific possibility, business case, and treatments for patients
2. **Think independently** – “First principles” mindset; unafraid to question assumptions
3. **Be radically transparent** – A culture of open communication where every perspective is heard
4. **Every minute counts** – Deliver treatments from discovery to patients as fast as humanly possible
5. **Let science speak** – Every potential medicine is judged by its scientific merits first

We aspire to partner with leading research organizations to translate genetically-defined therapies

Our Partnership Philosophy

1. **Decisions are patient-centric** – We only support research if we believe it is the best possible decision for patients, and we are the best possible partner
2. **Marathon, not a sprint** – The best relationships are built over the long-term. We are not here just to license IP, but to facilitate a feed forward loop from idea to drug
3. **Risk and reward are always shared** – NewCo creation from licensed products will reward everyone if successful

Typical alliance structure

- 3-year duration
- Annual engagement with PIs directly through Zoom or RFP
- Possibility to sponsor research or license and create NewCo
- Detailed feedback for every opportunity we come across

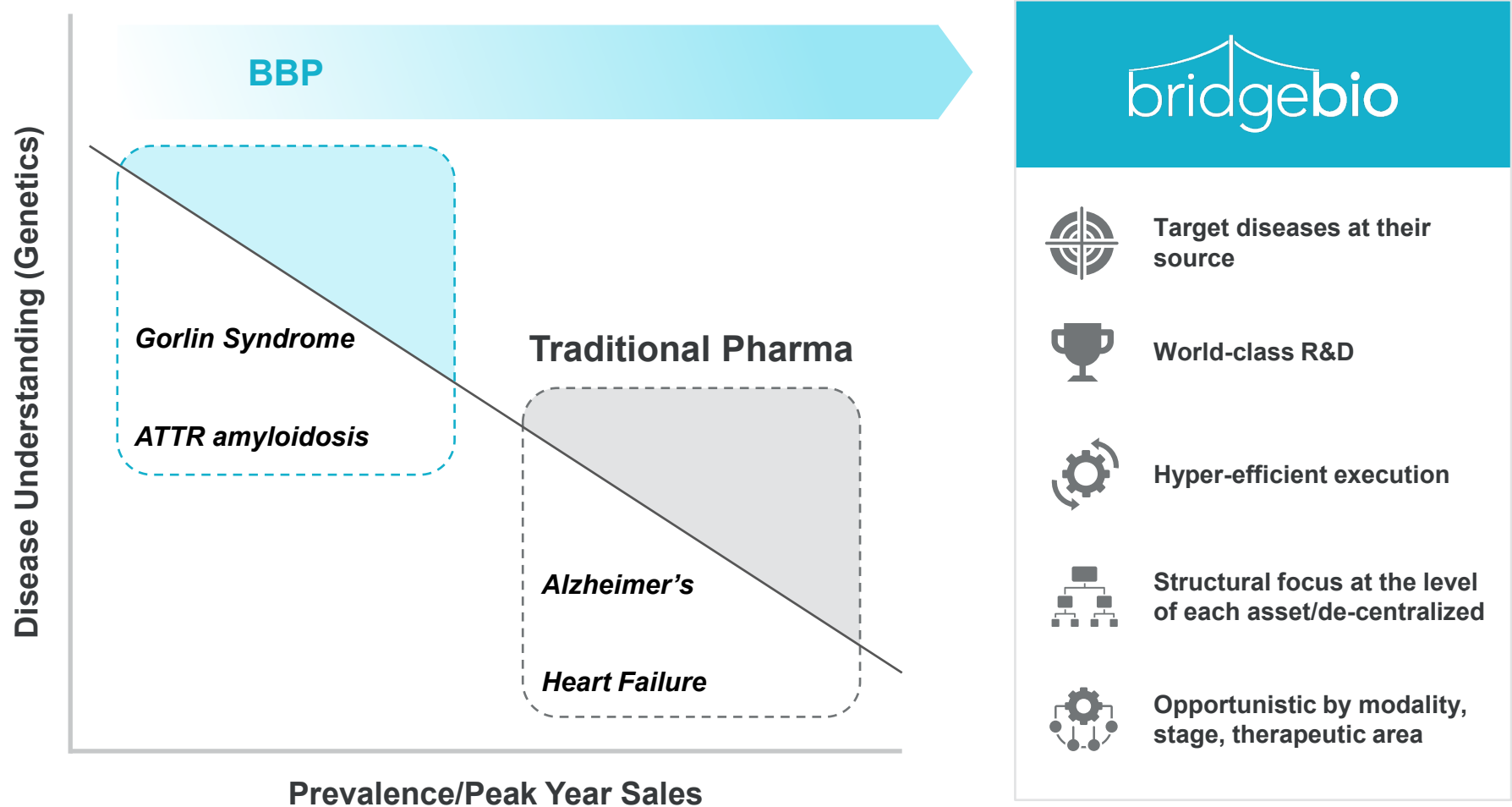
Agenda

How we work

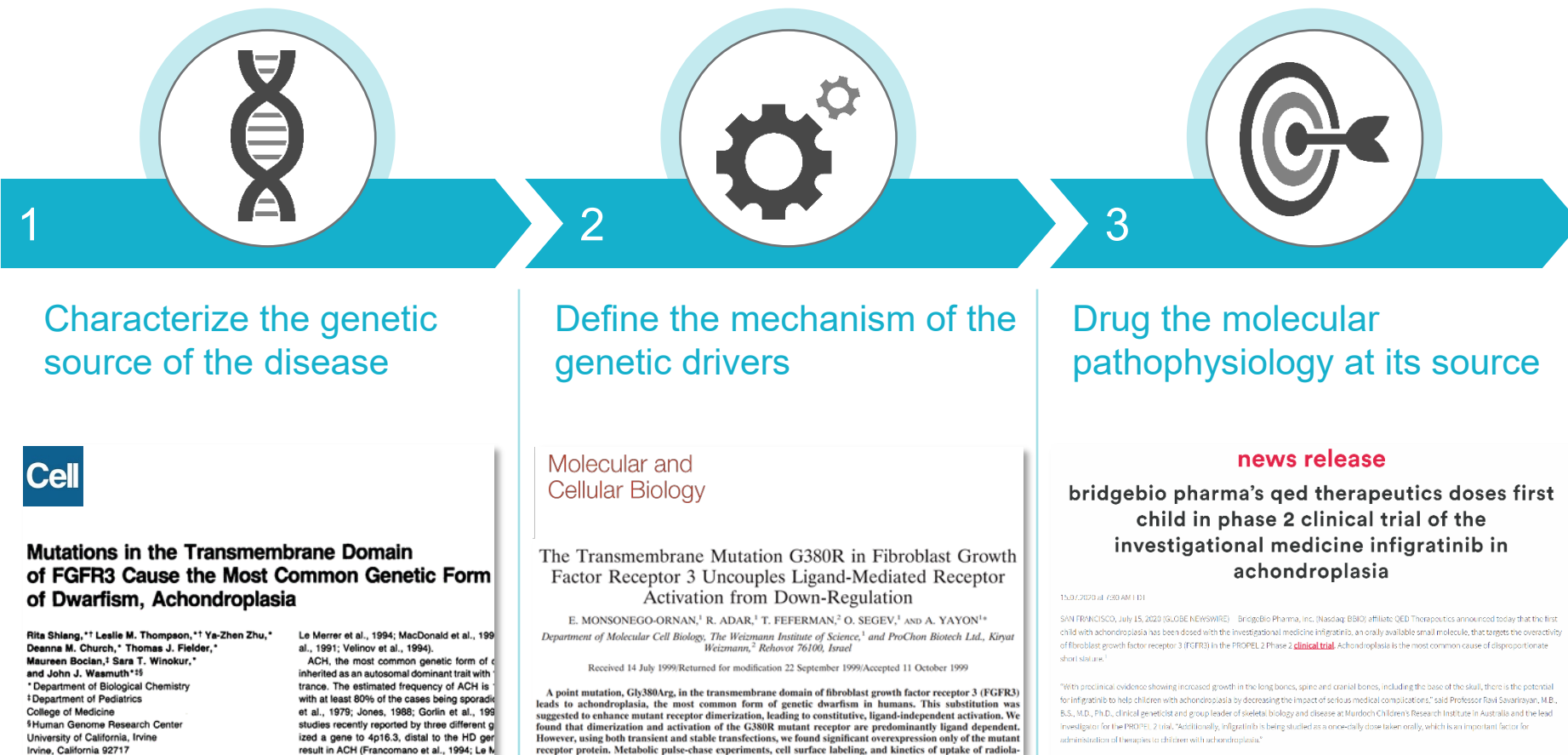
How we partner

Portfolio snapshots

BridgeBio Pharma: A new type of company, designed for the opportunity in genetic disease



We exist to leverage genetic findings into new therapies



When the genetic driver of a disease is known, patients can be molecularly-matched to therapy

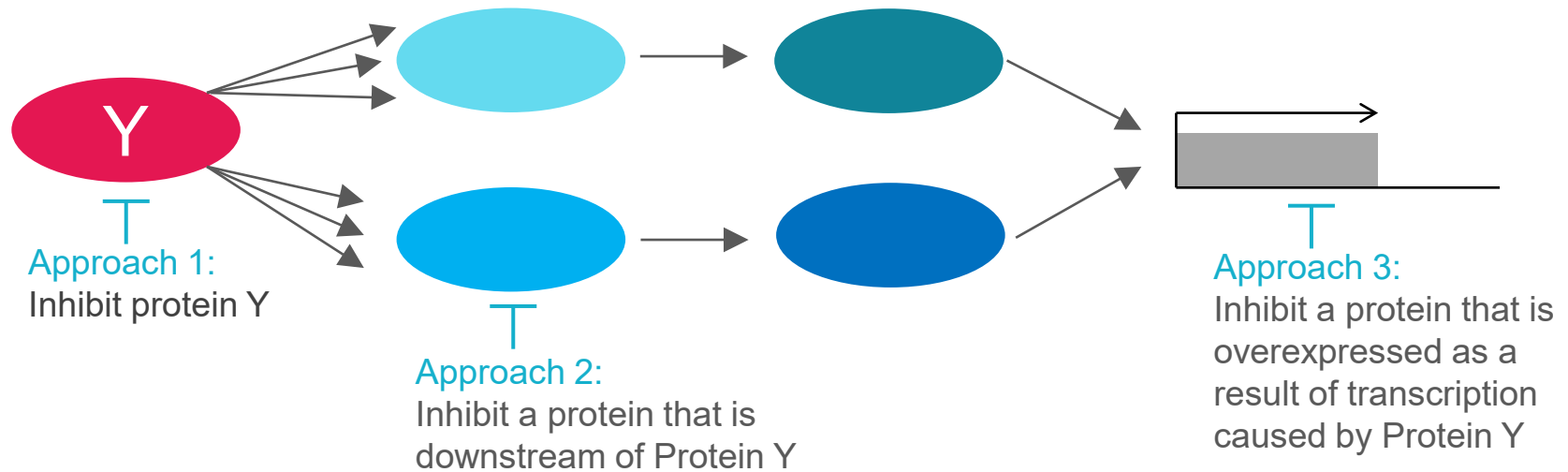


Drugging the source of pathology is key to our model

Hypothetical mechanism of Disease X

- Disease X is caused by increased signaling in protein Y due to a mutation
- Protein Y signaling is through two routes, causing gene expression

Cartoon of Disease X signaling with possible therapeutic approaches


























Interpretation of therapeutic approaches

- **Approach 1:** The disease is being drugged at the source. Even better if the drug is mutant-specific.
- **Approach 2:** The disease is being drugged one degree away from the source. Not all pathways affected by the mutant are addressed by the therapy
- **Approach 3:** The disease is being drugged several degrees away from the source.

We are led by industry veterans

We rely on some of the top R&D minds in this industry to select new therapies...

 Charles Homcy, MD Chairman of Pharmaceuticals	    	  
 Frank McCormick, PhD, FRS Chairman of Oncology	  	 
 Richard Scheller, PhD Chairman of R&D	 	    

...and put them in the hands of seasoned industry R&D operations

 Uma Sinha, PhD Chief Scientific Officer	  	  
 Eli Wallace, PhD CSO in Residence, Oncology	 	  
 Robert Zamboni, PhD Chemistry		  

Together, our R&D team is responsible for 100+ INDs and 20+ approved products

Our team is built to rapidly seek and develop new drugs


























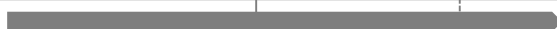




















Area of expertise	Description	
Genetic disease	<ul style="list-style-type: none"> Former or current academic leaders in medical genetics and genetic cancer research Strong network with hospital and academic Centers of Excellence 	✓
Preclinical development	<ul style="list-style-type: none"> Biologists, toxicologists, CMC, PK experts, and other R&D specialties Medicinal chemists capable of optimizing small molecule drugs Strong track record advancing drugs into the clinic 	✓
Clinical and regulatory	<ul style="list-style-type: none"> Experts in clinical trial design and execution, especially in orphan diseases Strong track record working with regulatory agencies to advance drugs to approval 	✓
Program diligence	<ul style="list-style-type: none"> Source new translational research and lead diligence for new investments Develop scientific and business cases for new company creation 	✓
Novel modalities	<ul style="list-style-type: none"> Experience designing oligonucleotide, AAV, and protein-based therapies Understanding of modality-specific preclinical and clinical development 	✓
Operations	<ul style="list-style-type: none"> Owner of each portfolio company's development plan, business strategy, budget 	✓

We have a uniquely dedicated and experienced team focused on advancing our current genetic disease programs, as well as sourcing new program opportunities

Together we are advancing >20 diverse therapeutics

 Small molecule  Topical small molecule  Biologics  Gene therapy

 = Snapshots of this program in the last section

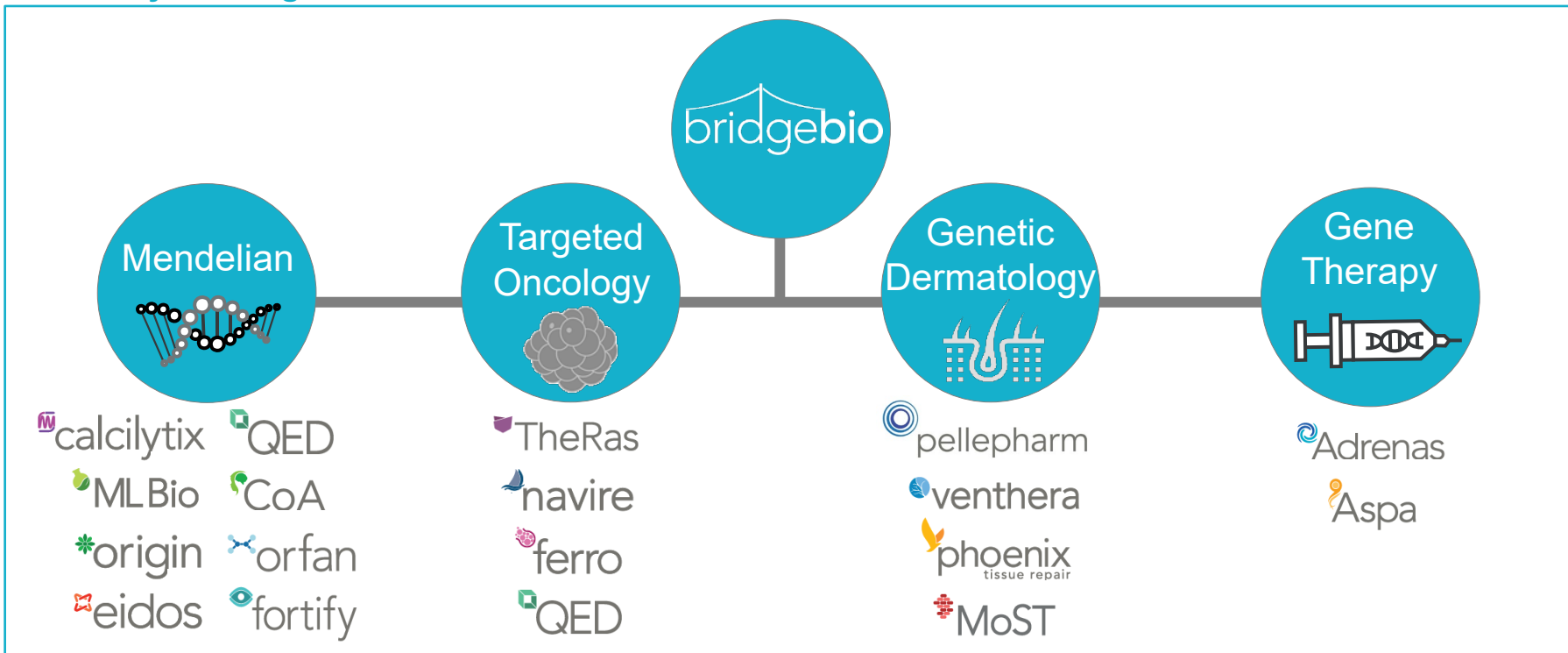
Portfolio segment	Program ¹	Drug mechanism	Diseases	Patient pop. (US+EU)	Modality	Pre-Clinical		Clinical		
						Discovery	IND-enabling	Phase1	Phase 2	Phase 3
Mendelian 	AG10	TTR stabilizer	ATTR-CM	>400K						
	BBP-870	cPMP replacement	MoCD type A	100						NDA
	Infigratinib	Low-dose FGFR1-3i	Achondroplasia ³	55K						
	Encaleret	CaSR antagonist	ADH1 / HP	12K / 200K						
	Zuretinol	Synthetic retinoid	IRD (RPE65 or LRAT)	3K						
	BBP-418	Glycosylation substrate	LGMD2i	7K						
	BBP-711	GO1 inhibitor	PH1 / FSF	5K / 1.5M						
	BBP-671	PanK activator	PKAN / OA	7K						
	BBP-761	Succinate prodrug	LHON	20K						
	BBP-472	PI3Kβi	PTEN autism	120K						
Genetic Dermatology 	Patidegib²	Topical SMOi	Gorlin / BCC	120K						
	BBP-589	Recombinant COL7	RDEB	1.5K						
	BBP-681	Topical PI3Kαi	VM / LM	117K						
	BBP-561	Topical KLK 5/7i	Netherton	11K						
Targeted Oncology 	Infigratinib	FGFR1-3i	FGFR+ tumors	37K						
	BBP-398	SHP2i	Multiple tumors	>500K						
	BBP-454	Pan-mutant KRASi	KRAS+ tumors	>500K						
	BBP-954	GPX4i	Multiple tumors	>500K						
Gene Therapy 	BBP-631	21-OH gene therapy	CAH	>75K						
	BBP-812	ASPA gene therapy	Canavan	1K						
	BBP-815	TMC1 gene therapy	Genetic hearing loss	10K						

¹ Each of our programs is housed in a separate affiliate company



Each therapeutic has its own team and decision makers

The family of BridgeBio subsidiaries



Why we believe every therapy deserves to be separately housed

- Having a dedicated team for each subsidiary means each therapy is treated like a “lead therapy”, and not just another pipeline project
- Employee incentivization is aligned with the success of their drug, and ultimately with delivering a therapy to patients
- There are more options to advance or partner each therapy

Agenda

How we work

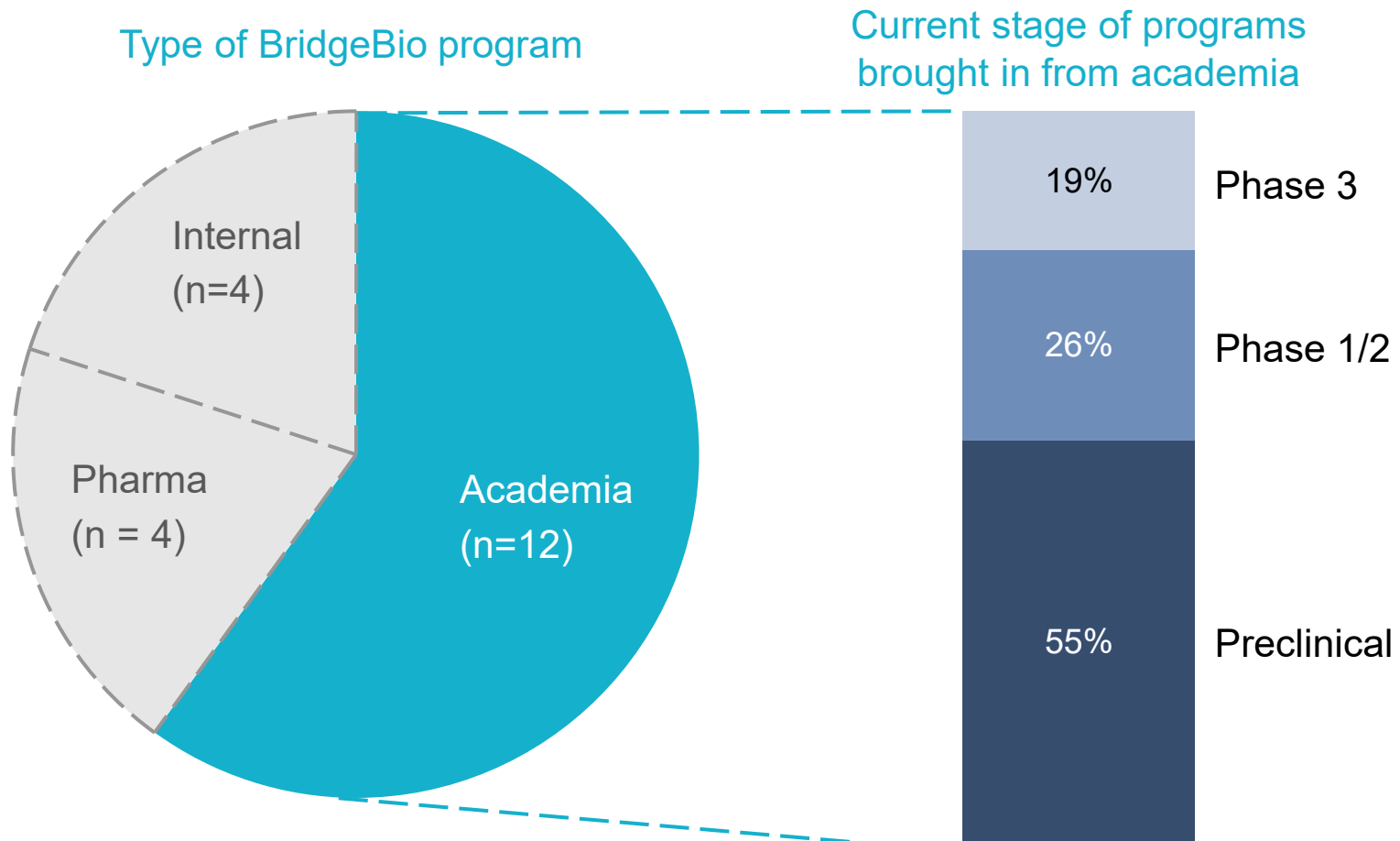
How we partner

Portfolio snapshots

To increase our transparency to partners, we have established an FAQ about how we find and fund therapies

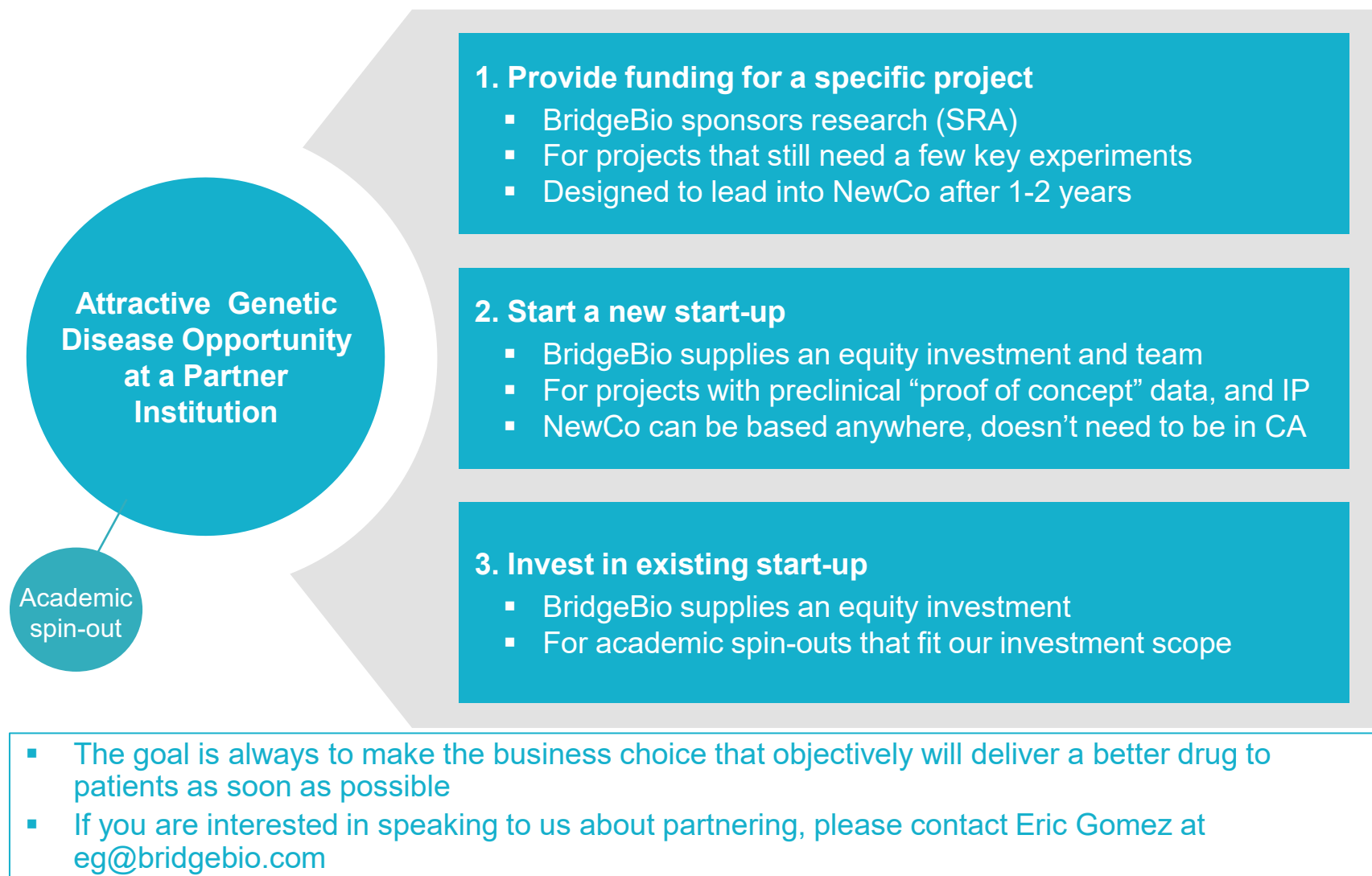
1. From where do our therapies originate?
2. What funding mechanisms exist?
3. How do we engage TTOs and PIs to learn about new research?
4. Who have we partnered with so far?
5. What are the properties of translational research that matter to us?
6. What kind of diligence do we do “behind the scenes”?
7. What does a successful investment look like over time?
8. What if the idea is on target, but the technology is too early?

Most of our investments originate from academia



- We partner with academia to drive our engine of new programs, and we always seek to maintain a high degree of academic investments

There are 3 ways we fund translational science



3. How do we engage TTOs and PIs to learn about new research?

We prefer to cultivate long-term relationships with PIs

Outreach	Description	Pros	Cons
Ad hoc check-ins	<ul style="list-style-type: none">▪ Sync with TTOs at partnering events▪ Periodically connect about available technologies and startups	<ul style="list-style-type: none">▪ Maintains point of contact	<ul style="list-style-type: none">▪ Doesn't build long-term engagement▪ Possibly misses nascent programs▪ Less feedback from us
Scheduled "focus sessions" with PIs	<ul style="list-style-type: none">▪ Curate research projects for hour-long discussions with PIs▪ Our team studies each opportunity beforehand	<ul style="list-style-type: none">▪ Relationship building▪ PI gets real-time feedback and questions	<ul style="list-style-type: none">▪ Research projects may be early▪ PI may not be as familiar with us beforehand
Institution-wide request for proposal (RFP)	<ul style="list-style-type: none">▪ Integrate into existing institution RFPs▪ Or roll out a BridgeBio-specific RFP	<ul style="list-style-type: none">▪ PIs often are more comfortable writing about their research▪ The proposal scope can be narrowly crafted	<ul style="list-style-type: none">▪ PIs may have proposal or grant-writing fatigue▪ Slower timeline
Multi-year partnership	<ul style="list-style-type: none">▪ A commitment to conduct RFPs for multiple consecutive years	<ul style="list-style-type: none">▪ Can be adapted to include other activities like educational seminars or seats on advisory panels	<ul style="list-style-type: none">▪ Requires effort from both sides to agree on legal terminology

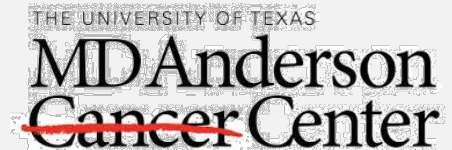
Regardless of outreach type, we always try to give constructive feedback and educate investigators about our interests and how they can best position their research for successful translation

4. Who have we partnered with so far?

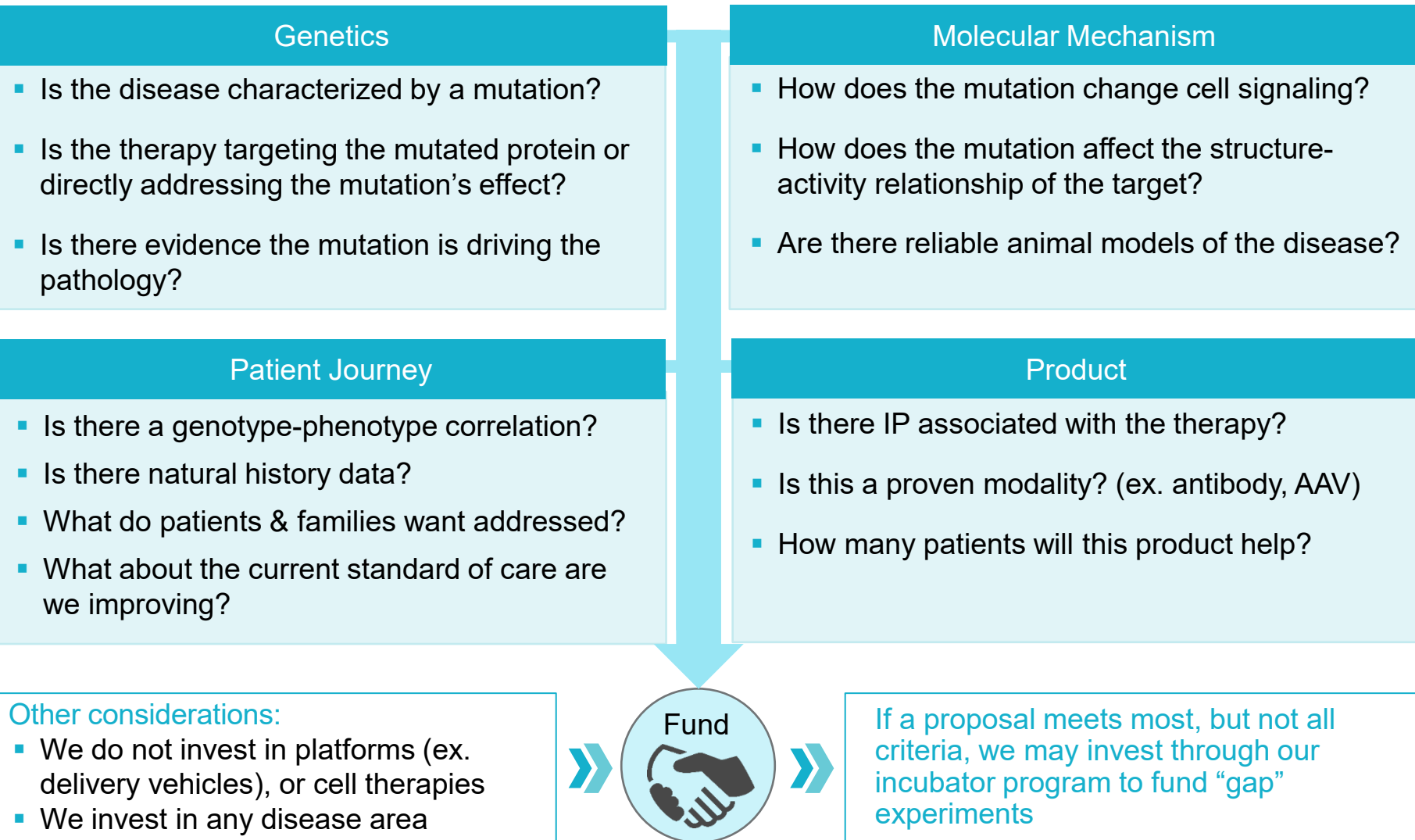
We are collaborating with 10+ universities currently

- We have executed 10+ multi-year alliances with universities (publicly disclosed ones listed below)
- We have held 10+ focus sessions with universities

Publicly disclosed academic/research institution collaborations



Our decision to fund is primarily based on 4 criteria



It is important to be able to “connect the dots”

Example of connecting the dots for genetic diseases caused by mutations in GNAS

MUTATION

- GNAS mutations at R201C/H cause fibrous dysplasia and McCune-Albright Syndrome



PROTEIN DYSREGULATION

- R201C/H are gain-of-function variants that keep G α s active regardless of GDP/GTP state, enhancing binding to adenylyl cyclase



SIGNALING DYSREGULATION

- Binding to adenylyl cyclase increases cAMP levels, activating PKA. PKA activates transcription factors known to cause proliferation and growth

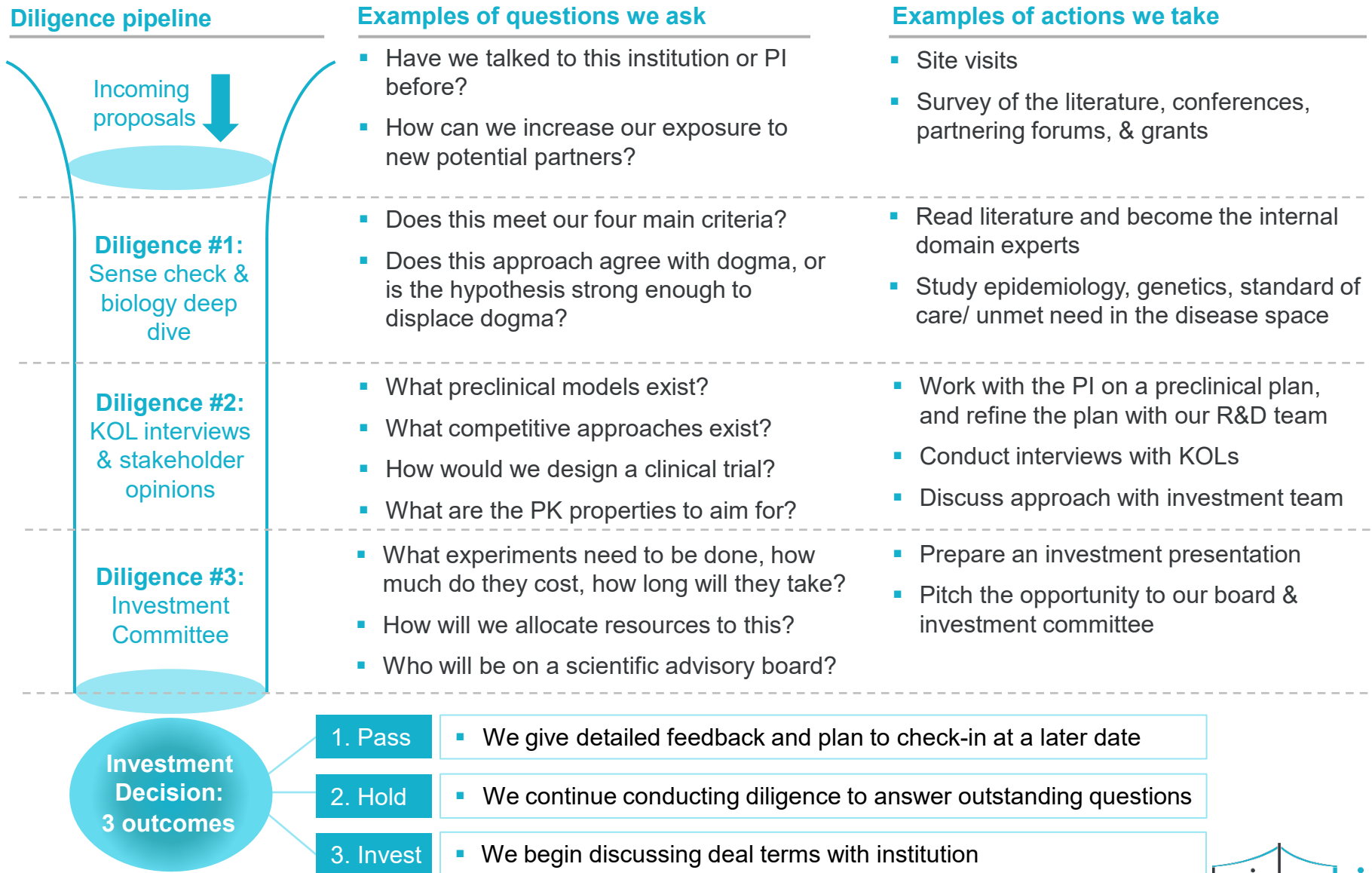


SYMPTOMS

- McCune-Albright is caused by a mosaic pattern of upregulated GNAS signaling in bone stromal stem cells and hormonal tissues
- Main symptoms include café-au-lait spots, endocrinopathies, and fibrous dysplasia of bone

6. What kind of diligence do we do “behind the scenes”

Each opportunity is subject to 3 phases of diligence

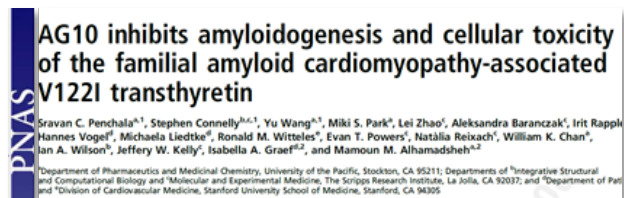


7. What does a successful investment look like over time?

Our 2 earliest academic NewCos have seen great success



Academic origins



Stanford University

Transthyretin stabilizer for familial amyloidosis



World-class biotech R&D

Cost: \$25M

Time: 2 years



Advancement to pivotal trials, value inflection

MarketWatch

Eidos Therapeutics stock soars in debut

By Emily Bary

Published: June 20, 2018 10:52 a.m. ET

- Now in phase 3

THE NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Inhibiting the Hedgehog Pathway in Patients with the Basal-Cell Nevus Syndrome

Jean Y. Tang, M.D., Ph.D., Julian M. Mackay-Wiggan, M.D., Michelle Aszterbaum, M.D., Robert L. Yauch, Ph.D., Joselyn Lindgren, M.S., Kris Chang, B.A., Carol Coppola, R.N., Anita M. Chanana, B.A., Jackleen Marji, M.D., Ph.D., David R. Bickers, M.D., and Ervin H. Epstein, Jr., M.D.



Topical SMOi for Gorlin Syndrome/ Basal cell carcinoma

Cost: \$26M

Time: 3.5 years

FierceBiotech

BIOTECH RESEARCH CRO MEDTECH

Biotech

LEO Pharma inks \$760M rare skin disease R&D deal with PellePharm

by Conor Hale | Nov 20, 2018 6:00am

- Now in phase 3 with pharma partner

Agenda

How we work

How we partner

Portfolio snapshots

AG10 (BBP-265): Potentially most potent transthyretin stabilizer for the treatment of transthyretin amyloidosis

Mechanism of Disease

Native transthyretin circulates in blood as a tetramer



Dissociation into toxic monomers initiates pathogenesis



Monomers aggregate and deposit as amyloid, causing disease
ATTR-CM, ATTR-PN



Impact on patients:

- Progressive, fatal cardiomyopathy (median life expectancy 3-5 yrs) and polyneuropathy
- Both manifestations includes significant disability
- We believe the diagnosed population of ATTR-CM is growing rapidly due to awareness and accurate, non-invasive, diagnostic methods

Mechanism of Drug

AG10 stabilizes TTR tetramer, potentially preventing disease



Dissociation into toxic monomers initiates pathogenesis



Monomers aggregate and deposit as amyloid, causing disease
ATTR-CM, ATTR-PN



AG10 is designed to bind TTR in a way that mimics a naturally-occurring protective mutation

Program Highlights

400k+

ATTR-CM patients worldwide

10k+

ATTR-PN patients worldwide

Clinical status:

Pre-IND

Phase 1

Phase 2

Phase 3

ATTR-CM Ph3 study ongoing (FPI 1Q19)

ATTR-PN Ph3 study expected 2H19

Catalysts:

- Ph2 ATTR-CM OLE data in 2H19
- Ph3 ATTR-CM 12-month data in 2021
- Potential ATTR-CM NDA submission in 2021

Key data:

- Ph2 ATTR-CM data presented in 2H18
 - Normalized serum TTR in all actively treated patients at d28
 - TTR stabilization of ≥90% in all actively treated pts at d28
- Ph3 ATTRibute study initiated in 1Q19
 - Potential registration on 12m 6MWD endpoint, followed by 30m CV outcome/hospitalization endpoint

Infigratinib (BBP-831): Only known oral FGFR1-3 inhibitor to treat achondroplasia and FGFR-driven cancers*

Mechanism of Disease

Achondroplasia

FGFR3 GOF mutant



Impact on patients:

- Short stature, spinal compression, narrow foramen magnum
- Increased risk of infant death, sleep apnea, infections
- No currently approved therapies in the US or EU

Oncology

FGFR1-3 mutant or fusion



Impact on patients:

- Poor survival, multiple comorbidities that impact QoL

Mechanism of Drug

FGFR3 GOF mutant



Program Highlights

55k

Achondroplasia pts in US+EU

37k

Annual new FGFR1-3+ oncology diagnoses in US+EU

Clinical status:

Pre-IND

Phase 1

Phase 2

Phase 3

ACH Ph1/2 planned for 2020

Oncology Ph3 enrolling (1L CCA)

Catalysts:

- Achondroplasia IND acceptance and FPI 2020 (expected)
- Achondroplasia clinical data 2021
- Potential oncology NDA in 2020 (2nd line cholangiocarcinoma, CCA)

Key data:

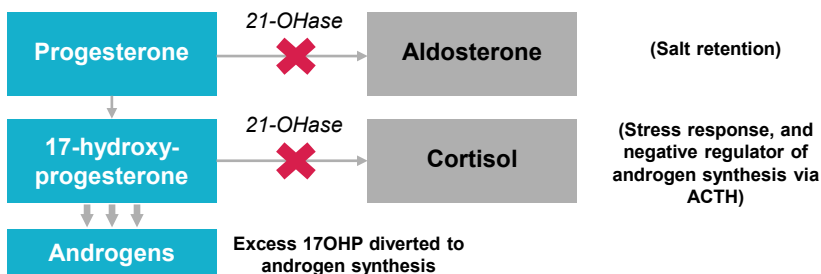
- Achondroplasia:
 - Strong preclinical data with effects on stature, foramen magnum and lumbar disc width in mouse model
 - Only known oral therapy in development
 - Anticipate active dose significantly lower than oncology
- Meaningful clinically data in oncology indications CCA and UC (26.9% and 25.4% ORR respectively)

* Based on clinicaltrials.gov search

BBP-631: Gene therapy for CAH caused by 21OH Deficiency

Mechanism of Disease

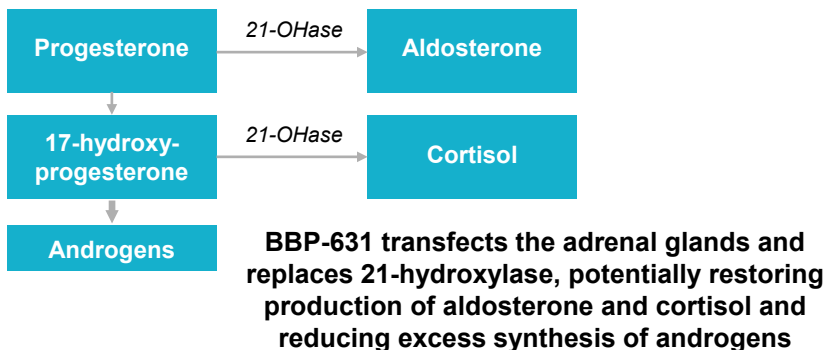
Steroid synthesis pathway



Impact on patients:

- Adrenal crises (can be fatal)
- Lifelong treatment with supraphysiologic steroid, which can cause significant morbidity (CV disease, obesity, bone disease)
- Abnormal sexual development, infertility

Mechanism of Drug



Program Highlights

75K+

Patients with
CAH in US+EU

1 / 11,000

Newborns
born with CAH

Development status:

Pre-IND

Phase 1

Phase 2

Phase 3

BBP-631

Catalysts:

- IND filing in 2020
- Anticipated clinical proof-of-concept data in 2021

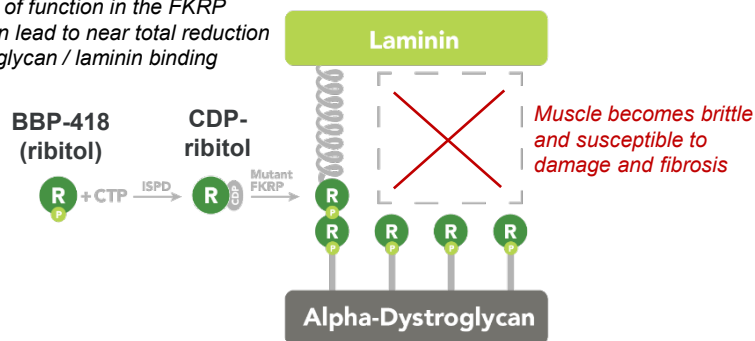
Key info:

- Durability of expression shown in NHP studies; sustained vector copy number and RNA expression out to at least 6 months
- Clinical GMP manufacturing underway at Paragon; in-house process development and analytical capabilities being developed
- Vector construct designed by Dr. Guangping Gao, a world leader in AAV design
- Genotype-phenotype studies show that 5-10% of enzyme activity may be sufficient for clinical impact

BBP-418: substrate replacement therapy for LGMD2i

Mechanism of Disease

Partial loss of function in the FKRP enzyme can lead to near total reduction in α -dystroglycan / laminin binding

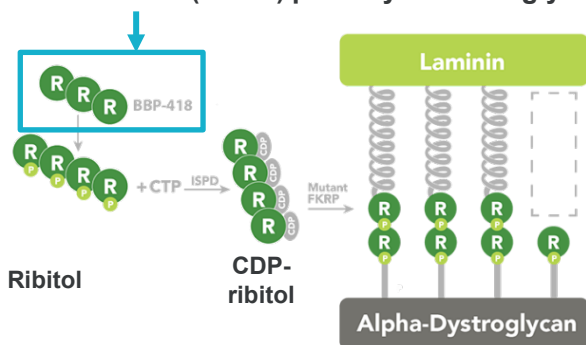


Impact on patients:

- Progressive muscle weakness, leading to loss of ambulation, respiratory function, and cardiac function
- Increased mortality in even the mildest forms of the disease
- No currently approved therapies

Mechanism of Drug

Exogenous BBP-418 (ribitol) partially restores glycosylation



Program Highlights

7000+

LGMD2i pts in US+EU

Development status:

Pre-IND

Phase 1

Phase 2

Phase 3

BBP-418

Catalysts:

- Natural history study start 2H19
- IND filing in 2020

Key info:

- Preclinical tolerability studies of BBP-418 in animals indicates a clean safety profile
- Preclinical studies of BBP-418 in the mouse model of severe LGMD2i (P448L) showed:
 - **Clear BBP-418 uptake in target tissues and efficient conversion into FKRP substrate:** 4x increases in '418 levels in heart and in leg tissue with similar increases in ribitol-5P and CDP-ribitol
 - **Restored α -dystroglycan glycosylation in skeletal, cardiac, and diaphragm muscle**
 - **Improved disease pathology and function:** Increase in running time and distance, increase in muscle, decrease in fibrosis, and increase in respiratory function
- **FDA Orphan Drug Designation** for the treatment of LGMD2i