

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

BBP Gorlin Syndrome **Traditional Pharma** ATTR amyloidosis Alzheimer's Heart Failure Prevalence/Peak Year Sales





Target diseases at their source



World-class R&D



Hyper-efficient execution



Structural focus at the level of each asset/de-centralized



Opportunistic by modality, stage, therapeutic area



Disease Understanding (Genetics)

We exist to leverage genetic findings into new therapies







Characterize the genetic source of the disease



Mutations in the Transmembrane Domain of FGFR3 Cause the Most Common Genetic Form of Dwarfism, Achondroplasia

Rita Shlang, "I Lealle M. Thompson, "I Ya-Zhen Zhu," Deanna M. Church, "Thomas J. Fielder," Maureen Bocian, "Sara T. Winokur," and John J. Wasmuth" "5 "Department of Biological Chemistry "Department of Pediatrics College of Medicine

Human Genome Research Center

University of California, Irvine

Irvine, California 92717

Le Merrer et al., 1994; MacDonald et al., 199 al., 1991; Velinov et al., 1994).

ACH, the most common genetic form of c inherited as an autosomal dominant trait with trance. The estimated frequency of ACH is with at least 80% of the cases being sporadic et al., 1979; Jones, 1988; Gorlin et al., 198 studies recently reported by three different gized a gene to 4p16.3, distal to the HD ger result in ACH (Francomano et al., 1994; t.e. M

Define the mechanism of the genetic drivers

Molecular and Cellular Biology

The Transmembrane Mutation G380R in Fibroblast Growth Factor Receptor 3 Uncouples Ligand-Mediated Receptor Activation from Down-Regulation

E. MONSONEGO-ORNAN,¹ R. ADAR,¹ T. FEFERMAN,² O. SEGEV,¹ AND A. YAYON,¹* Department of Molecular Cell Biology, The Weizmann Institute of Science,¹ and ProChon Biotech Ltd., Kiryat Weizman,² Rehova 76100, Israel

Received 14 July 1999/Returned for modification 22 September 1999/Accepted 11 October 1999

A point mutation, Gly380Arg, in the transmembrane domain of fibroblast growth factor receptor 3 (FGFR3) leads to achondroplasia, the most common form of genetic dwarfism in humans. This substitution was suggested to enhance mutant receptor dimerization, leading to constitutive, lagand-independent activation. We found that dimerization and activation of the G380R mutant receptor are predominantly ligand dependent. However, using both transient and stable transfections, we found significant overexpression only of the mutant receptor protein. Metabolic pulse-chase experiments, cell surface labeling, and kinetics of uptake of radiolations.

Drug the molecular pathophysiology at its source

news release

bridgebio pharma's qed therapeutics doses first child in phase 2 clinical trial of the investigational medicine infigratinib in achondroplasia

15.07.2020 at 7:30 AM LDT

SNM FRVMCISCO, July 15, 2020 (GLOBE NEWSWIRE) BridgeBio Pharma, Inc. (Naddag BBIO) affiliate QED Thorapout ca announced today that the first child with achordroplasia has been dosed with the investigational medicine infigratinis, an orally available small melecule, that targets the overactivit of Broblast growth factor receptor 3 (FGFR3) in the PROPEL 2 Phase 2 clinical trial. Achordroplasia is the most common cause of disproportionate short Salure.¹

"With preclinical evidence showing increased growth in the long bores, pine and carnial bores, including the case of the skull, there is the potential for infligation to not exhibit evidence from control part of the production of the PROPEL 2 think, "Actitionally, infigeration is being studied at a once-daily dose basen orally, which is an important factor for administration of the PROPEL 2 think, "Actitionally, infigeration is being studied at a once-daily dose basen orally, which is an important factor for administration of the integration of the PROPEL 2 think, "Actitionally infigeration is being studied at a once-daily dose basen orally, which is an important factor for administration of the integration of the PROPEL 2 think, "Actitionally infigeration is being studied at a once-daily dose basen orally, which is an important factor for administration of the integration of the PROPEL 2 think, "Actitionally infigeration is being studied at a once-daily dose basen orally, which is an important factor for administration of the integration of the PROPEL 2 think, "Actitionally infigeration is being studied."

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

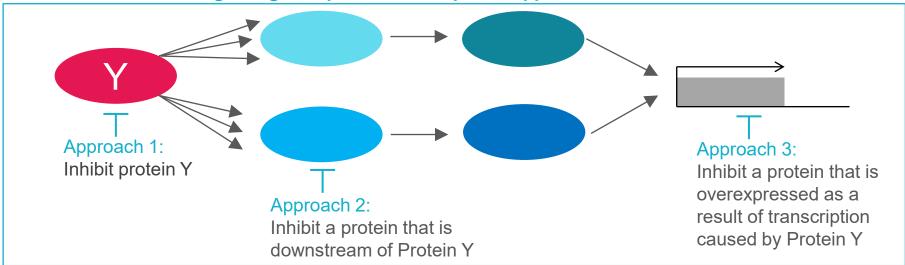


Drugging the source of pathology is key to our model

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 Homey, 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

- Former or current academic leaders in medical genetics and genetic cancer research
- Strong network with hospital and academic Centers of Excellence



Preclinical development

- 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

- 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

- Source new translational research and lead diligence for new investments
- Develop scientific and business cases for new company creation



Novel modalities

- Experience designing oligonucleotide, AAV, and protein-based therapies
- Understanding of modality-specific preclinical and clinical development



Operations

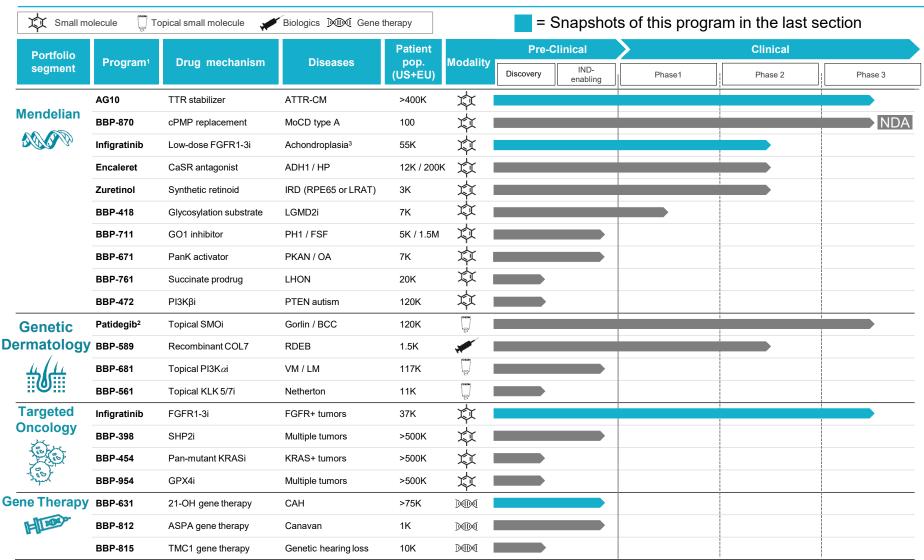
Owner of each portfolio company's development plan, business strategy, budget



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



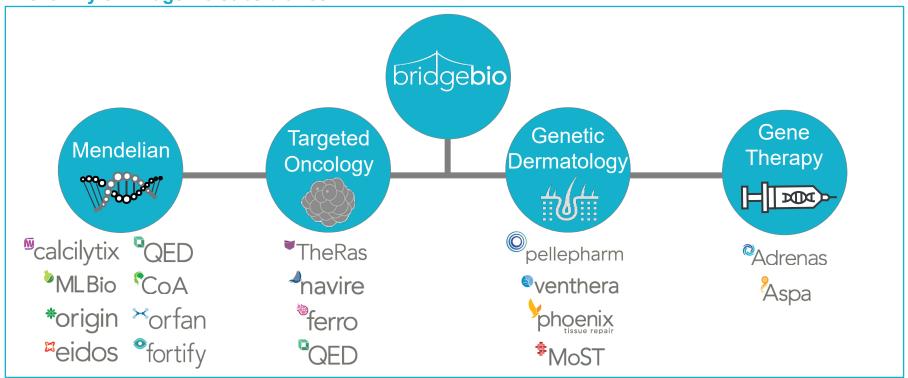
¹ Each of our programs is housed in a separate affiliate company





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

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Portfolio snapshots

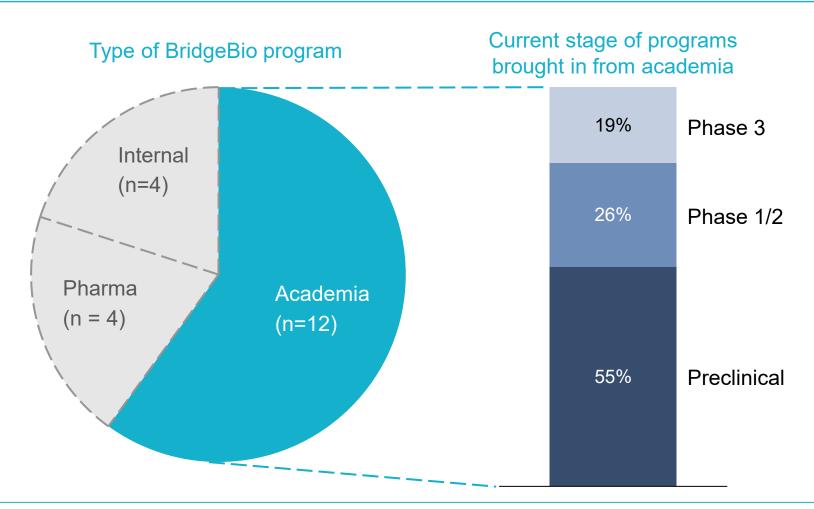


To increase our transparency to partners, we have established an FAQ about how we find and fund therapies

- 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

Attractive Genetic
Disease Opportunity
at a Partner
Institution

Academic spin-out

1. Provide funding for a specific project

- BridgeBio sponsors research (SRA)
- For projects that still need a few key experiments
- Designed to lead into NewCo after 1-2 years

2. Start a new start-up

- BridgeBio supplies an equity investment and team
- For projects with preclinical "proof of concept" data, and IP
- NewCo can be based anywhere, doesn't need to be in CA

3. Invest in existing start-up

- BridgeBio supplies an equity investment
- For academic spin-outs that fit our investment scope
- The goal is always to make the business choice that objectively will deliver a better drug to patients as soon as possible
- If you are interested in speaking to us about partnering, please contact Eric Gomez at eq@bridgebio.com



We prefer to cultivate long-term relationships with Pls

Outreach Cons **Description Pros** Sync with TTOs at Maintains point of

Ad hoc check-ins

- partnering events
- Periodically connect about available technologies and startups

contact

- Doesn't build long-term engagement
- Possibly misses nascent programs
- Less feedback from us

Scheduled "focus sessions" with PIs

- Curate research projects for hour-long discussions with PIs
- Our team studies each opportunity beforehand

- Relationship building
- PI gets real-time feedback and questions

- Research projects may be early
- PI may not be as familiar with us beforehand

Institution-wide request for proposal (RFP)

- Integrate into existing institution RFPs
- Or roll out a BridgeBiospecific RFP
- Pls often are more comfortable writing about their research
- The proposal scope can be narrowly crafted
- PIs may have proposal or grant-writing fatigue
- Slower timeline

Multi-year partnership

- A commitment to conduct RFPs for multiple consecutive vears
- Can be adapted to include other activities like educational seminars or seats on advisory panels
- 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

Genetics

- Is the disease characterized by a mutation?
- Is the therapy targeting the mutated protein or directly addressing the mutation's effect?
- Is there evidence the mutation is driving the pathology?

Patient Journey

- Is there a genotype-phenotype correlation?
- Is there natural history data?
- What do patients & families want addressed?
- What about the current standard of care are we improving?

Molecular Mechanism

- How does the mutation change cell signaling?
- How does the mutation affect the structureactivity relationship of the target?
- Are there reliable animal models of the disease?

Product

- Is there IP associated with the therapy?
- Is this a proven modality? (ex. antibody, AAV)
- How many patients will this product help?

Other considerations:

- We do not invest in platforms (ex. delivery vehicles), or cell therapies
- We invest in any disease area



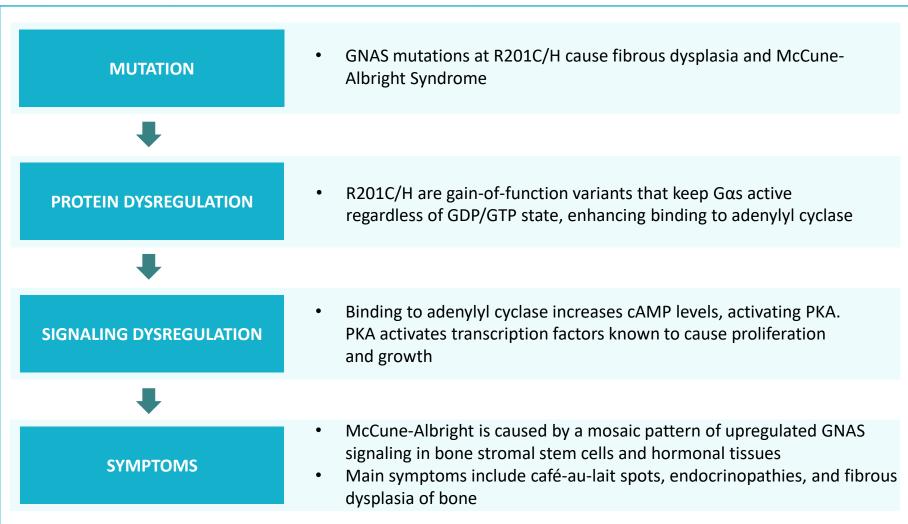


If a proposal meets most, but not all criteria, we may invest through our incubator program to fund "gap" experiments



It is important to be able to "connect the dots"

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





Each opportunity is subject to 3 phases of diligence

Diligence pipeline

Incoming proposals

Diligence #1: Sense check & biology deep dive

Diligence #2: KOL interviews & stakeholder opinions

Diligence #3: Investment Committee

Examples of questions we ask

- Have we talked to this institution or PI before?
- How can we increase our exposure to new potential partners?
- Does this meet our four main criteria?
- Does this approach agree with dogma, or is the hypothesis strong enough to displace dogma?
- What preclinical models exist?
- What competitive approaches exist?
- How would we design a clinical trial?
- What are the PK properties to aim for?
- What experiments need to be done, how much do they cost, how long will they take?
- How will we allocate resources to this?
- Who will be on a scientific advisory board?

Examples of actions we take

- Site visits
- Survey of the literature, conferences, partnering forums, & grants
- Read literature and become the internal domain experts
- Study epidemiology, genetics, standard of care/ unmet need in the disease space
- Work with the PI on a preclinical plan, and refine the plan with our R&D team
- Conduct interviews with KOLs
- Discuss approach with investment team
- Prepare an investment presentation
- Pitch the opportunity to our board & investment committee

Investment Decision: 3 outcomes

- 1. Pass
- We give detailed feedback and plan to check-in at a later date
- 2. Hold
- We continue conducting diligence to answer outstanding questions
- 3. Invest
- We begin discussing deal terms with institution



Our 2 earliest academic NewCos have seen great success











Advancement to pivotal trials,

value inflection

Academic origins

AG10 inhibits amyloidogenesis and cellular toxicity of the familial amyloid cardiomyopathy-associated V122I transthyretin

Sravan C. Penchala^{n I}, Stephen Connelly^{h, C.I}, Yu Wang^{n I}, Mikis S. Park^{*}, Lei Zhao^{*}, Aleksandra Baranczak^{*}, Irit Rappi Hannes Voge[‡], Michaela Lieddte^{*}, Ronald M. Witteles^{*}, Evan T. Powes^{*}, Nathlia Rekxach^{*}, William K. Chan^{*}, an A. Wilson^{*}, Jeffery W. Kelly^{*}, Isabella A. Gree[‡], and Mamoun M. Alhamadsheh^{*2}

Department of Pharmaceutics and Medicinal Chemistry, University of the Pacific, Stockson, CA 95211; Departments of *Integrative Structural jund Computational Biology and *Molecular and Experimental Medicine, The Scripps Research Institute, La Jolla, CA 92037; and *Department of Pand *Univision of Cardiovascular Medicine, Stanford University School of Medicine, Sta



Transthyretin stabilizer for familial amyloidosis

World-class biotech R&D

Cost: \$25M

Time: 2 years

Eidos Therapeutics stock soars in debut

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

Market Watch

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 conditional provides, zone codam

Now in phase 3 with pharma partner



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

Mechanism of Disease Native transthyretin Dissociation into toxic Monomers aggregate circulates in blood monomers initiates and deposit as amyloid, causing disease as a tetramer pathogenesis 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

ATTR-CM. ATTR-PN







AG10 is designed to bind TTR in a way that mimics a naturallyoccurring 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:

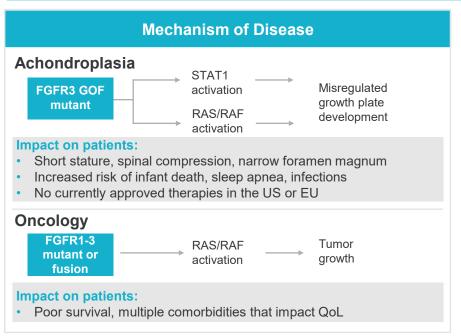
- Ph2 ATTR-CM OLE data in 2H19
- Ph3 ATTR-CM 12-month data in 2021
- Potential ATTR-CM NDA submission in 2021

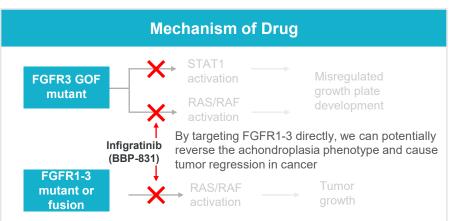
Key data:

- 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*





Program Highlights 55k 37k Annual new FGFR1-3+ Achondroplasia oncology diagnoses in pts in US+EU 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)

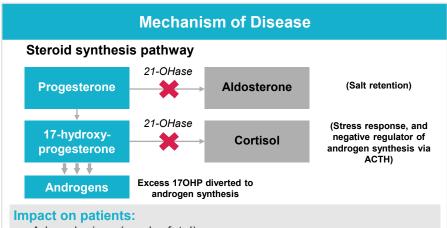
Key data:

- 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)

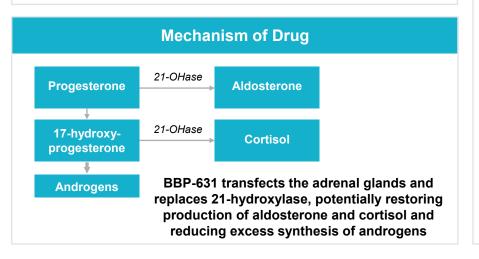


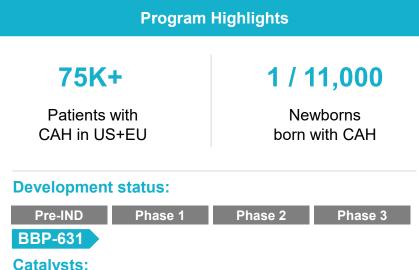
^{*} Based on clinicaltrials.gov search

BBP-631: Gene therapy for CAH caused by 210H Deficiency



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





Catalysts:

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

Key info:

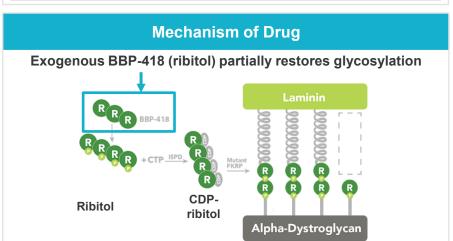
- Durability of expression shown in NHP studies; sustained vector copy number and RNA expression out to at least 6 months
- Clinical GMP manufacturing underway at Paragon; in-house process development and analytical capabilities being developed
- Vector construct designed by Dr. Guangping Gao, a world 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

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



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

